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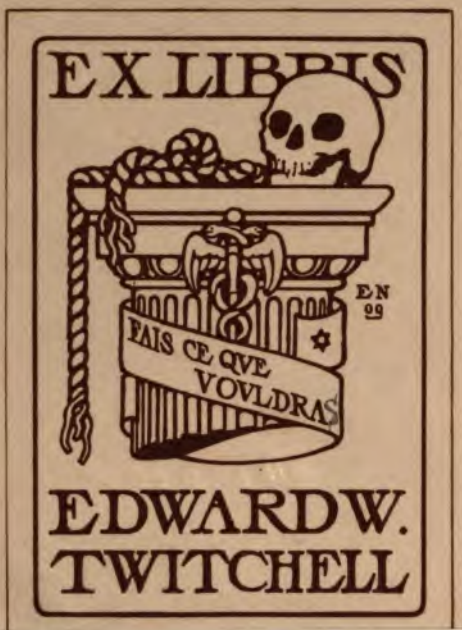
THIRD EDITION



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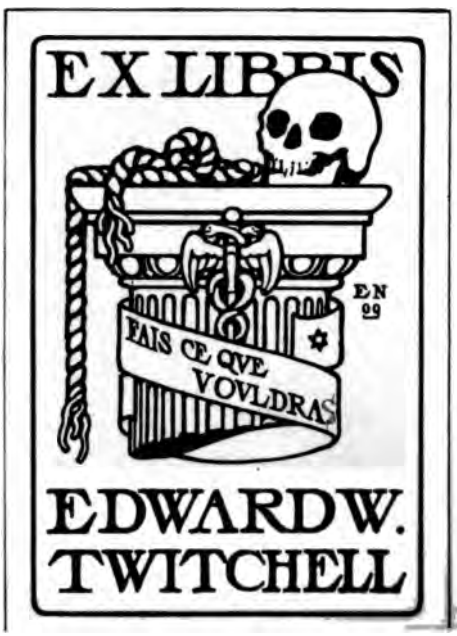

LAN

MEDICAL

THE MODERN MATERIA MEDICA

THE SOURCE, CHEMICAL AND PHYSICAL PROPERTIES, THERAPEUTIC ACTION, DOSAGE, ANTIDOTES AND INCOMPATIBLES OF ALL ADDITIONS TO THE NEWER MATERIA MEDICA THAT ARE LIKELY TO BE CALLED FOR ON PRESCRIPTIONS, TOGETHER WITH THE NAME AND ADDRESS OF THE MANUFACTURER OR PROPRIETOR, AND IN THE CASE OF FOREIGN ARTICLES, OF THE AMERICAN AGENT.

THIRD EDITION
REVISED AND ENLARGED.

NEW YORK
THE DRUGGISTS CIRCULAR
100 WILLIAM STREET
1912

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1912

PREFACE TO THE THIRD EDITION.

Although it is less than two years since the second edition of The Modern Materia Medica was issued, the additions to the materia medica in that time have been so numerous as to make this revised list a necessity. The present edition contains almost six hundred new items. Many fully known, officially recognized, and obsolete items have been deleted. In its general characteristics this edition does not differ from the preceding one.

New York.
1912.

80750

PREFACE TO THE SECOND EDITION.

In the five years that have elapsed since the first edition of The Modern Materia Medica was issued, the out-put of additions to the materia medica has been no less prolific than in the preceding decade. Each number of The Druggists Circular has contained a list of these newer medicaments. And, with a view of making this information more readily available, these lists have been embodied in the present edition of The Modern Materia Medica. The additions also include much information obtained from other sources.

A new departure in this edition is the statement of the name and address of the manufacturer or proprietor of each medicament described, where such have been obtainable, and of the agent in this country for each article of foreign origin on sale here. This feature will, we believe, greatly enhance the every-day value of the work as a book of reference at the prescription counter.

New York.
1911.

PREFACE TO THE FIRST EDITION.

It is practically impossible for the pharmacist of to-day to keep pace with the developments in modern chemistry as regards new remedies. Hundreds and hundreds of new therapeutic agents are introduced and advertised yearly, some meritorious and of permanent interest, others of but passing importance.

With a view of affording a source of accurate and unbiased information concerning the newer additions to the materia medica, THE DRUGGISTS CIRCULAR some time ago began the publication of an extended descriptive list of new remedies, including some older substances newly brought to the attention of the medical profession, and also a number of nutritives specially designed for use by the sick and convalescent.

In conjunction with the regular alphabetical continuation of the list from one issue to another of the CIRCULAR, all the remedial agents that were introduced from time to time during its publication were described in supplemental lists, thus constantly bringing the matter up to date.

These lists were completed in the issue for November, 1905. They have since been revised and rearranged, so that all their items appear in continuous alphabetical order, and are now presented in the following pages.

It is confidently believed that "The Modern Materia Medica" is the most complete and reliable book of its kind now obtainable and that it will prove a valuable addition to the reference library of the pharmacist.

New York.
1906.

THE MODERN MATERIA MEDICA

A

ABILENA WATER is an American cathartic water containing in each gallon, according to analysis, 8.9 grains of sodium bicarbonate, 10.7 grains calcium bicarbonate, 0.9 grain of iron bicarbonate, 0.5 grain of sodium nitrate, 3229.3 grains of anhydrous sodium sulphate, 71.3 grains of anhydrous magnesium sulphate, 45 grains of calcium sulphate, 65 grains of sodium chloride and a trace of silica; no ammonia.—Abilena Co., Abilena, Kans.

ABRIN *(jequiritin)* is the active principle of jequirity seed (abrus precatorius). It is a yellowish-white powder, soluble in sodium chloride solution. While extremely poisonous when introduced into the circulation, it is believed to be harmless when swallowed. It is used in 1:500,000 solution in place of jequirity infusion, in pannus, chronic conjunctivitis, and the like. Great care should be exercised in handling it; it is very dangerous in the nose, eyes or on wounds. Its solutions should be prepared fresh as wanted. Mfr.: E. Merck, Darmstadt, Germany; agts.: Merck & Co., New York.

ACERDOL.—A trade name for *calcium permanganate.*

ACETAL *(diethyl-acetal; diethyl-aldehyde; ethylidene-diethyl ether)*, $CH_3CH:(OC_2H_5)_2$, occurs as a colorless, volatile liquid of the specific gravity 0.831 at 20° C., of pleasant odor, and agreeable after-taste. It dissolves in about 20 parts of water and 25 of chloroform, and is miscible in all proportions with alcohol or ether. It is used as a hypnotic in doses of 2 to 3 fluid drams.—(Nonproprietary.)

ACETAMIDO-ETHYL-SALICYLIC ACID.—A synonym of *benzacetine.*

ACETANISIDIN.—See *methacetin.*

ACETANNIN is an American designation for *diacetyltannin* or *tannigen.*

ACETMETHYLANILID is the chemical designation of *exalgin.*

ACETOCAUSTIN is a 50 per cent. solution of trichloracetic acid, used as a caustic on warts, corns, etc.

ACETOFORM is a brand name for *acetone-chloroform*, a product described under the nonproprietary title *chlorbutynal.* Acetoform *dusting-powder* consists of acetoform 1 part and boric acid 47 parts.—Mfrs.: Eli Lilly & Co., Indianapolis, *Ind.*

ACETOL-SALICYLIC ACID ETHER is better known by its trade name of *salacetol*.

ACETOMORPHINE.—See *heroin*.

ACETON (not acetone) is a preparation offered as a headache and grippe remedy. According to government analyses it contains acetanilide, caffeine and sodium bicarbonate.—Mfr.: Aceton Med. Co., Mystic, Conn.

ACETONE-BROMOFORM.—See *brometone*.

ACETONE-CHLOROFORM is *chlorbutynal*.

ACETONE-COLLODION is the same as *filmogen*, which see.

ACETOPHENONE is the chemical name of *hypnone*.

ACETOPHENONEPHENETIDID.—See *malarin*.

ACETOPYRIN is better known as *acopyrin*, which see.

ACETOTOLUID, ORTHO-, also designated as *acetpr-tho-amidotoluol*, or *orthotolyl-acetamide*, $C_9H_{11}NO$, occurs as colorless crystals which are freely soluble in alcohol or ether, and sparingly soluble in water. It is employed as an antipyretic. Dose, 3 to 8 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACETOTOLUID, PARA-, *(paratolylacetamide)*, occurs as colorless crystals sparingly soluble in water and melting at 151° C. It is used as an antipyretic. Dose, 15 to 30 grains.—Mfr.: E. Merck, Darmstadt, Germany; agts.: Merck & Co., New York.

ACETOZONE ($C_6H_5CO.O.O.COCH_3$), formerly known as *benzozone*, and chemically definable as benzoyl-acetyl peroxide, was discovered by Profs. P. C. Freer and F. G. Novy, of the University of Michigan. In the pure state it forms crystals having a melting-point of 40° to 41° C., dissolves in 1,000 to 10,000 parts of water, 20 of oil, is slightly soluble in alcohol, fairly so in ether or chloroform, but slowly decomposing in all these solvents excepting petroleum oil; it is decomposed by contact with alkalies and organic matter of all kinds. It is marketed only as a 50 per cent. mixture with an inert absorbent powder, which occurs as a light, cream-colored powder of peculiar odor and pungent taste. In the presence of water it gives off H_2O_2 by hydrolysis. Acetozone is a germicide that has been used chiefly in typhoid fever, internally, though to some extent also in surgery and gynecology, externally. It is generally used in a solution of 30 grains to the half gallon, the insoluble portion being allowed to settle and the clear liquid decanted; and in this form it is given internally, 2 to 6 ounces every 4 hours. It is also used topically in 10 per cent. triturations with boric acid, talcum, etc.; and internally, freely diluted with milk sugar, in capsules, 3 to 5 grains 3 times a day. Its solutions should be kept in the refrigerator.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

ACET-PARA-AMIDO-SALOL, or *acet-para-amido-phenyl-salicylate*, is *salophen*.

ACET-PARA-PHENETIDIN and ACET-PHENETIN are

synonyms of *phenacetin*, a chemical now official as *acetphenetidin*.

ACET-THEOCIN-SODIUM *(soluble theocin)* is *theocin sodioacetate*, and contains about 60 per cent. of theocin. It occurs as a white powder soluble in about 23 parts of water yielding an alkaline solution from which theocin is precipitated by acids; insoluble in alcohol or ether. It is used as a diuretic. Dose, 3 to 5 grains 2 or 3 times daily, in solution, after meals. Must be kept well-stoppered and in a dry, cool place.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ACETYLAMIDOAZOTOLUENE.—See *azodermin*.

ACETYLATOXYL *(sodium acetylaminophenylarsonate)* is used in sleeping sickness and other diseases and in the same doses as atoxyl.

ACETYL-ORTHOCUMARIC ACID.—See *tylmarin*.

ACETYL-PARAETHOXY-PHENYL-URETHANE. — See *thermodin*.

ACETYLPARAMIDOPHENOL SALICYLATE.—See *salophen*.

ACETYL-PARAOXYPHENYL-URETHANE is marketed as *neurodin*.

ACETYLPHENYLHYDRAZIN, also known as *hydracetin* and *pyrodin*, $C_8H_{10}N_2O$, occurs as a white, crystalline powder, odorless and almost tasteless, readily soluble in alcohol or chloroform, melting at 129° C., and slightly soluble in water or ether. While possessed also of antipyretic and analgesic action, and hence used to some extent in rheumatism and febrile affections, acetylphenylhydrazin is now employed chiefly in psoriasis, externally, in 10 per cent. ointments. It is rather toxic. The dose as an antipyretic is ½ to 3 grains a day; in sciatica and articular rheumatism, 3 to 5 grains daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACETYLSALICYLAMIDE, also known by the trade name *ethrisin* or *æthrisin*, is obtained by causing acetic anhydride to act upon a mixture of salicylamide and glacial acetic acid. It occurs as white crystals melting at 143° to 144° C. and readily soluble in alcohol and acetic acid. It is intended for use as an antirheumatic and anodyne.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

ACETYL-SALICYL-PHENETIDIN is the chemical designation for *thermol*.

ACETYL-SALOL.—See *spiroform*.

ACETYL-TANNIN is a synonym of *tannigen*.

ACETYSAL is the trade name adopted for *acetosalicylic acid* by G. & R. Fritz-Petzold & Süss, Vienna, Austria.

ACHIBROMIN is defined, chemically, as *mono-bromisovaleryglycolurea*. It occurs as white, glistening scales containing 28.5 per cent. of bromine and melting between 150° and 152° C. It is used as a nerve sedative and mild hypnotic. Dose, *6 to 15* grains. Marketed also as 5½-grain

tablets.—Mfr.: Dr. Arnold Voswinkel, Berlin, Germ.

ACHIIODIN is a chemical analogue of achibromin, iodine being substituted for the bromine. It crystallizes as small leaflets melting at 150° C., and is intended for use where a combination of iodides and valerian is indicated. Dose, 5 to 15 grains. Marketed also as 5½-grain tablets.—Mfr.: Dr. Arnold Voswinkel, Berlin, Germ.

ACID, ACETYL-METHYLENE-DISALICYLIC is known in the trade as *a-f-sal*, formerly *urasol*.

ACID ACETYLPARACRESOTINIC.—See *ervasin*.

ACID ACETYLSALICYLIC is better known as *aspirin*.

ACID, AGARIC, AGARICIC, OR AGARICINIC is pure *agaricin*.

ACID, ALPHA-TOLUIC and ALPHA-TOLUYLIC are synonyms of *phenyl-acetic acid*.

ACID ARSINOSALICYLIC is an organic arsenical occurring as colorless needles melting at 300° C., and easily soluble in warm water and in alcohol, but very slightly soluble in ether. It is intended as a succedaneum for atoxyl as an alterative and antiluetic.—Mfr.: W. Adler, Carlsbad, Germ.

ACID BENZOARIC.—See *gallogen*.

ACID BENZOBORIC is a mixture of 1 part of boric acid and 2 parts of benzoic acid, occurring as a white powder possessing a benzoin-like odor and slightly pungent taste. It is sparingly soluble in water, more freely in alcohol. It is used as an intestinal and vesical disinfectant. Dose, 10 to 20 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID, BETA-PHENYLACRYLIC.—See *acid, cinnamic*.

ACID, CACODYLIC, or *dimethylarsenic acid*, $(CH_3)_2$ As. O.OH, is an organic compound of arsenic brought to the notice of the medical profession by Prof. A. Gautier in 1897, on account of its relative non-toxicity in spite of its high content in arsenic (54 per cent.). It forms white, odorless crystals, that are soluble in water or alcohol. It has been used in psoriasis, diabetes, leucocythemia, and Basedow's disease, in doses of ½ to 1 grain 3 or 4 times a day in mixture flavored with syrup of orange and peppermint oil. Latterly, cacodylic acid has been largely superseded by its sodium salt. Its iron, guaiacol, mercury, and quinine salts are also in vogue for special indications. It imparts a garlicky odor to the breath and perspiration. Some authors explain the relative non-toxicity of cacodylic acid on the score that only 2 or 3 per cent. of it is absorbed, the remainder being eliminated unchanged with the urine.—(Nonproprietary.)

ACID, CAMPHORIC, $C_{10}H_{16}O_4$, obtained from camphor by oxidation with nitric acid, is now official.

ACID, CARBAZOTIC, is *picric acid*.

ACID, CATHARTIC, in reality a mixture of the calcium, magnesium and potassium salts of cathartinic acid as they exist in senna leaves, occurs as brownish-black granules

or scales, soluble in water. It is used instead of senna chiefly in children. Dose for a child, 1½ to 3 grains; adults take 2 to 3 times as much.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID, CINNAMIC *(cinnamylic* or *beta-phenyl-acrylic)*, $C_9H_8O_2$, is prepared synthetically or obtained from storax, balsam of tolu or cinnamon oil. It forms white or yellowish leaflets, soluble in alcohol and fatty oils. It was introduced some years ago by Landerer as a remedy for phthisis and lupus to be used intravenously or by parenchymatous injection in 5 per cent. oily emulsion containing 0.7 per cent. of sodium chloride, of which 2 to 15 minims were injected two or three times a week. Latterly it has been practically superseded by its sodium salt, which is neutral and freely soluble. Hoff a few years ago recommended it internally in phthisis, combined with arsenous acid and opium extract, in doses of 1/20 to ⅛ grain thrice daily.—(Nonproprietary.)

ACID CINNAMYLCACODYLIC consists, according to Crinon, of equal parts of cacodylic acid and cinnamic acid. It is intended as an antitubercular and alterative.

ACID CREOSOTINIC *(acid paracreosotinic)*, $C_6H_2COOH.CH_3$, occurs as a white to reddish powder, soluble in alcohol and melting at about 151° C. It has been used as an antipyretic and intestinal antiseptic. Dose, as antipyretic, 5 to 20 grains; as intestinal antiseptic, ½ to 1 grain.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID DIETHYLBARBITURIC.—See *veronal*.

ACID DIIODORICINIC.—See *frigusine*.

ACID DIIODOPARAPHENYLARSINYLIC is of golden yellow color, melts at 80° C., and is soluble in hot acetic acid. It is proposed as an alterative similar in effect to atoxyl.

ACID, DIIODOSALICYLIC, has the composition $C_6H_2I_2(OH)COOH$, and occurs as yellowish crystals that are readily soluble in alcohol or ether. It has been employed to a very limited extent as an antipyretic, analgesic and antiseptic, chiefly in rheumatism and gout. The dose is 8 to 20 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.; Merck & Co., New York.

ACID, ELLAGIC is the chemical equivalent of *gallogen*.

ACID FILICIC *(filicin, filicinic acid)*, $C_6H_8.OH(OC_4H_7O)_3$, is obtained from malefern rhizome, and occurs as a yellowish, amorphous powder, soluble in hot alcohol or oils. It is used as an anthelmintic. Dose, 8 to 15 grains, with calomel or jalap.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID FORMIC 25 PER CENT. is official in the German and Swiss pharmacopœias. It occurs as a clear, colorless liquid possessing a sharp acid odor and taste. Though possessing diuretic properties it is employed mainly externally as a counterirritant in rheumatism, applied in 4 per cent.

dilution of the official article. Dose, 2 to 20 drops, well diluted. (Nonproprietary.)

ACID, GLYCERINOPHOSPHORIC, $C_3H_5(OH)_2O.H_2PO_3$, is a colorless liquid of the specific gravity 1.125. It was introduced as a directly assimilable nerve tonic, but is now used only in the form of its salts—calcium, iron, potassium, quinine, sodium, strychnine, etc. (See these.)

ACID, GLYCOCHOLIC, $C_{26}H_{43}NO_6$, is the principal constituent of ox gall, used therapeutically in the form of its sodium salt, which see.

ACID GLYCONIC *(dextronic* or *maltonic acid)*, $OH.CH_2.(CH.OH)_4.CO_2H + aq.$, is an oxidation product of glucose or cane sugar. It occurs as a colorless or yellowish syrupy mass which does not reduce Fehling's solution and is miscible with water. It is used, with sodium bicarbonate, in diabetic coma. Dose, 1 to 2 ounces.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID GYMNEMIC, $C_{32}H_{56}O_{12}$, is obtained from the leaves of gymnema sylvestris, and occurs as an amorphous, yellow powder possessing an acrid-acidulous taste. It is readily soluble in alcohol, sparingly soluble in water. It is employed for producing a temporary ageusia (tastelessness) for sweet as well as bitter substances. A 1 to 5 per cent. solution is used as a mouth-wash, or tea leaves moistened with a 2 per cent. solution are chewed.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID GYNOCARDIC *(chaulmoogra acid)*, $C_{14}H_{24}O_2$, is obtained from chaulmoogra oil, the oil of the seed of gynocardia odorata. It occurs as fatty masses, melting at about 30° C. and soluble in alcohol. It is used in leprosy, syphilis, tuberculosis and chronic rheumatism. Dose, 1 to 3 grains, in capsules; externally in 5 to 10 per cent. ointments.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID HYDROCINNAMIC.—See *acid phenylproprionic.*

ACID IODIC, HIO_3, is derived from iodine by oxidation with nitric acid, and appears as a white crystalline powder, readily soluble in water, but only slightly soluble in alcohol, ether or glycerin. It is employed externally as a caustic and astringent, and internally as a substitute for potassium iodide and as a hemostatic and anti-emetic in gastric hemorrhage; also used as an oxidizer and a reagent for morphine. Dose, 1 to 3 grains, well diluted, thrice daily. It is quite poisonous.—(Nonproprietary.)

ACID IODO-FORMIC is a solution "each cubic centimeter of which is equivalent to 1 centigram of formic acid saturated with metallic iodine." It is offered for use by intramuscular injection in syphilis. Dose, 15 minims (1 c.c.). *Acid iodo-formic dilute* represents in every 15 cubic centimeters 1 centigram of formic acid saturated with iodine. It is intended for internal administration. Dose, a tablespoonful with meals or every two to three hours

—Mfrs.: Anglo-American Pharmacal Co., New York; agts.: E. Fougera & Co., New York.

ACID IODOSOBENZOIC, $C_6H_4.COOH.IO$, occurs as yellowish leaflets, which melt at 244° C., and are sparingly soluble in water. It is offered as a succedaneum for iodoform as a vulnerary.

ACID, LARICINIC, is pure *agaricin*.

ACID METHYLENE-CITRYLSALICYLIC. — See *novaspirin*.

ACID, METHYLENE-DI-SALICYLIC is marketed under the name of *formosal*.

ACID, METHYLENE-HIPPURIC.—See *hippol*.

ACID, NAPHTHYLAMINE-SULPHONIC *(naphthionic acid)*, $C_{10}H_6.NH_2.SO_3H$, was recommended by Prof. Riegler in iodism, in nitrite poisoning, and in bladder trouble caused by strong alkalinity of the urine. It occurs as a white powder sparingly soluble in water. Dose in iodism, 7½ grains half hourly up to 45 grains; in bladder disease, the same quantity in wafers three or four times a day, associated with irrigation of warm 1:1000 solution.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID NITROPHENISIC or NITROXANTHIC.—See *acid picric*.

ACID NUCLEIC or NEUCLEINIC is an organic acid obtained from nuclein by the action of alkalies or by tryptic digestion. It occurs as a white amorphous powder of acid reaction, readily soluble in alkali solutions, slightly soluble in water and insoluble in alcohol or ether. It is said to increase the number of white corpuscles and thus to increase the system's resistance to infection. Dose, 2 to 5 grains. See also nuclein. (Nonproprietary.)

ACID, OSMIC, known also as *osmium tetroxide* and *perosmic acid*, OsO_4, is prepared by heating finely powdered osmium in oxygen. It occurs as yellow, deliquescent needles; odor pungent and suffocating; and the vapor is strongly irritant to the air passages. Soluble in water; decomposed by alcohol and ether. Used internally, in muscular rheumatism and neuralgia; and externally, for the removal of tumors. Employed in microscopy as a stain. Dose, 1/60 grain 3 times a day. Injection, 1/20 to ⅛ grain daily in 1 per cent. solution. Incompatible with organic substances, phosphorus, ferrous sulphate and iodides. Antidotes, inhalation of hydrogen sulphide.—(Nonproprietary.)

ACID, OXYNAPHTHOIC *(Alpha-)*, also known as *naphtholcarboxyl acid*, $C_{10}H_6.OH.COOH$, appears as white crystals that are soluble in alcohol, ether and oils. It is used as an intestinal disinfectant in doses of 1 to 3 grains, and as an antiparasitic externally in 10 per cent. ointments. It is rarely prescribed at the present time.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID, OXYNAPHTHYL-ORTHO-OXYTOLUYLIC is the chemical name of the article marketed as *epicarin*.

ACID, PARA-AMIDOBENZOIC ETHYL ESTER, is a snyonym of *anesthesin*.

ACID, PARA-AMIDO-BENZOL-SULPHONIC, is commonly known as *sulphanilic acid*, which see.

ACID, PARA-ANILIN-SULPHONIC.—See *acid sulphanilic*.

ACID, PEPITZAHOIC is synonymous with *perezol* which see.

ACID, PEROSMIC, is a synonym of *osmic acid*.

ACID, PHENYLACETIC *(alpha-toluic* or *alpha-toluylic* acid*)*, $C_6H_5CH_2.COOH$, was introduced as an intestinal antiseptic and antitubercular agent, but is very little heard of now-a-days. It forms white leaflets, soluble in alcohol and ether. Dose, 10 to 15 drops of a 1 in 6 hydro-alcoholic solution three times daily. Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID PHENYL-ETHYL-BARBITURIC.—See *luminal*.

ACID PHENYLPROPRIONIC *(acid hydrocinnamic)*, $C_6H_5CH_2.CH_2.COOH$, forms colorless crystals that melt at 48 to 49° C., and are sparingly soluble in water, but readily soluble in alcohol. It is used as an antitubercular. Dose, 10 to 30 drops of a 20 per cent. alcoholic solution.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID PHENYL-QUINOLINE-CARBONIC.—See *atophan*.

ACID PICRIC *(acid picrinic, picronitric, carbazotic, nitroxanthic* or *nitrophenicic)*, $C_6H_3N_3O_7$, occurs as yellowish, lustrous flat, odorless, bitter crystals, readily soluble in alcohol, ether and chloroform, but slightly soluble in water. It has been used to a small extent internally as an antimalarial and in trichiniasis, but is employed chiefly as an application to burns and erysipelas in 2 per cent. hydroalcoholic solution. Dose, ½ to 2 grains in solution. It is incompatible with all oxidizable substances, and dangerously explosive with sulphur, phosphorus, etc.—(Nonproprietary.)

ACID PROPYLO-BARBITURIC is the designation a German competing firm has applied to its make of the product better known by the trade name *proponal*.—Mfr.: Dr. A. Voswinkel, Berlin W, Germany.

ACID QUINIC, $C_6H_7(OH)_4COOH$, occurs as colorless prisms, or a white, crystalline powder, readily soluble in water, sparingly soluble in alcohol and almost insoluble in ether. It is used in gout. Dose, 8 grains several times daily.—(Nonproprietary.)

ACID SALICYLOSALICYLIC.—See *diplosal*.

ACID SALOLORTHOPHOSPHINIC is the chemical name of *solvosal*.

ACID SCLEROTINIC is derived from ergot, and occurs as a brownish powder, soluble in water. It is employed as a hemostatic as well as an antiepileptic. Dose, ½ to 1

grain, once or twice daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ACID SOZOIODOLIC.—See under *sozoiodole.*

ACID, SULPHANILIC *(para-anilin-sulphonic* or *para-amido-benzol-sulphonic acid),* $NH_2C_6H_4SO_3H+2H_2O$, is obtained by heating anilin with fuming sulphuric acid, and appears as white, efflorescent crystals slightly soluble in water but freely so in alcohol. It is used internally in coryza, catarrhal laryngitis, etc. It is also used in 5 per cent. solution in conjunction with ½ per cent. solution of sodium nitrite as a test for bile in urine. Dose, 10 to 20 grains once or twice daily, in solution with sodium bicarbonate.—(Nonproprietary.)

ACID TANNIC DIACETYLATED.—See *tannigen.*

ACID, TRICHLORACETIC, obtained from glacial acetic acid by the action of chlorine and sunlight, or by the oxidation of chloral, is now official.

ACID TRINITROPHENIC is *picric acid.*

ACID TUMENOLSULPHONIC.—See *tumenol.*

ACID, URIC *(lithic acid),* $C_5H_4N_4O$, is a normal constituent of urine. In the pure state it occurs as white crystals, moderately soluble in glycerin, very slightly soluble in water, and insoluble in alcohol or ether. It has been employed by M. Maciel and others in tuberculosis. Dose, 15 grains three or four times a day.—(Nonproprietary.)

ACIDOL is a trade name for *betaine hydrocloride* (lycin), $C_5H_{11}NO_2.HCl$. The drug occurs as white crystals, of fruit-acid taste, and readily soluble in water. It contains 23.8 per cent. of hydrochloric acid, and is employed as a substitute for the latter as a digestive. Dose, 8 to 6 grains, well diluted (it is slightly caustic in undiluted form). Marketed also as 8-grain tablets.—Mfrs.: Aktiengesellschaft für Anilinfabrikation, Berlin, Germ.; agts.: Farbenfabriken of Elberfeld Co., New York.

ACIDOL-PEPSIN is a combination of acidol (betaine hydrochloride) and pepsin in the form of tablets and intended for use instead of hydrochloric acid and pepsin where these are indicated at the same time. The *strong* kind contain, each, 0.4 gram of acidol and 0.1 gram of pepsin; while the *weak* tablets each contain 0.05 gram of acidol and 0.2 gram of pepsin.—Mfrs.: as above.

ACNE BACTERIN.—See under *bacterins.*

ACOIN *(di-para-anisyl-monophenetyl-guanidine hydrochloride)* is one of the newer local anesthetics. It appears as a white, odorless, very bitter powder, soluble in 17 parts of water while dissolving freely in alcohol. It is vedy sensitive to alkalies, so that special precautions are necessary in preparing solutions of it, and these are readily affected by light. The product has hence not met with much favor. It has been recommended for Schleich's infiltration anesthesia in 1/10 per cent. solution containing 0.8 per cent. of sodium chloride; and Darier uses it in 1 per cent. solution to render subconjunctival injections

painless, 1 to 3 drops being added to the medicated solution to be injected (mercury cyanide, etc.). It is now used mostly in conjunction with cocaine on the eyes—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

ACOIN OIL is a 1 per cent. solution of acoin base in peanut oil, and is used chiefly in eye diseases.

ACONITINE is no longer a new remedy, being in fact official in the U. S. P., but so much confusion and lack of definite information regarding it exists in the medical and pharmaceutical professions, that a brief reference to it here appears imperative. There are two distinct modifications of "aconitine" on the market, differing widely in chemical constitution and still more so in physiological activity and toxicity. *Amorphous aconitine*, the kind supplied by wholesale druggists on unspecified orders for "aconitine," is a mixture of the various amorphous bases of aconite, and is only about 1/15 as active as crystalline aconitine. Its dose is 1/60 to 1/15 grain; externally it is used in ½ to 2 per cent. ointments or solutions. The other form of aconitine is the *crystalline*, a highly potent and poisonous definite alkaloid from aconite, about 15 times as powerful physiologically as amorphous aconitine. Crystalline aconitine, the official variety, is given in doses of 1/600 to 1/200 grain; it is rarely prescribed in ointments, oleates, or solutions. It is obvious that the use of amorphous aconitine when the crystalline modification is intended by the prescriber will lead to disappointment, while the dispensing of the crystalline when the amorphous variety is meant is fraught with the most serious danger, and may be attended by disastrous results. Hence the necessity of carefully discriminating. The antidotes are tannic acid (3 grains every half hour), atropine and stimulants, emetics hypodermically; and artificial respiration is generally resorted to.—(Nonproprietary.)

ACOPYRIN *(acetopyrin* or *antipyrin acetyl-salicylate)* is a sort of combination of aspirin and antipyrin. It forms a white pjowder of a faint acetic odor, readily soluble in alcohol or chloroform, but very slightly soluble in water; it possesses the reactions of antipyrin and gives a red coloration with ferric chloride. Acetopyrin, as appears from its composition, is an antipyretic, antineuralgic, and antirheumatic, its chief use beng in the last-named capacity. It is advertised as free from the untoward effects of the salicylates and of antipyrin. The dose is 8 to 15 grains singly, and 45 to 90 grains a day, best given in cachets.—Mfrs.: Heyden Chem. Works, Radebeul (Germ). and New York.

ACTOL is the name under which *silver lactate* was introduced some years ago, but which has since been abandoned, as far as this market is concerned, in favor of the plain chemical designation, under which it will be referred to in these columns.

ADALIN *(bromdiethyl-acetyl carbamide)*, $C(C_2H_5)_2Br$-$CONH.CONH_2$, is prepared by the action of bromdiethyl-acetyl bromide on urea, and occurs as a nearly colorless and odorless powder melting at 116° C.; readily soluble in alcohol, chloroform or ether, but only sparingly soluble in water. It is prescribed as a nerve sedative and mild hypnotic. Dose, 5 to 15 grains, with cold water. Supplied also as 5-grain tablets in packages of 25.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ADAMON is dibromdihydrocinnamic acid borneol ester, or *borneol dibromdihydrocinnamate*, $C_6H_5.(CHBr)_2.CO.O.$-$C_{10}H_{17}$. It occurs as a white, nearly odorless, almost tasteless, neutral, crystalline powder. It contains about 35 per cent. each of bromine and borneol, melts at about 73° C., is insoluble in water, but dissolves readily in ether or chloroform. It is brought forward as a nerve sedative. Dose, 8 to 12 grains.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ADENOCHROM is defined as the coloring matter of the suprarenal glands, having a large sulphur content and intended for use in gout. Dose, ½ to 1½ grains.

ADHESOL is a solution of 350 parts of copal, 30 parts of benzoin, 30 parts of tolu balsam, 20 parts of oil of thyme, and 3 parts of alpha-naphthol, in 1000 parts of ether, recommended as an antiseptic paint in treating diphtheritic sore-throat, tuberculous ulcers, etc.

ADIPOL is an ointment base said to be capable of tak ing up 30 per cent. of its weight of water. It is marketed in two forms, white and yellow, the latter being intended for veterinary practice.

ADONIDIN is a glucoside obtained from adonis vernalis. It is an amorphous, light-brown, extremely hygroscopic powder of intensely bitter taste; soluble in water or alcohol, insoluble in ether or chloroform. It is employed therapeutically as a cardiac tonic and mild diuretic especially in mitral and aortic regurgitation. It is used also in nicotine poisoning and chronic diffuse nephritis. Dose, 1/16 to ¼ grain four times daily, as tablet-triturate or in solution with a little chloroform and ammonium carbonate (Stern); maximum dose ½ grain. Its antidotes are the same as those of digitalin. Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ADRALGIN is a combination of thymol, cocaine and adrenalin (epinephrine), marketed by a Swiss firm in ampuls, and used as a local anesthetic. A *dental* and a *surgical* adralgin are offered.

ADRENALIN is the brand name adopted by Parke, Davis & Co., Detroit, for the active principle of the suprarenal gland, herein described under *epinephrine*. [The U. S. Circuit Court of Appeals has sustained Dr. J. Takamine's patents on the active principle of the suprarenal capsule.—Ed.]

ADRICAINE is a dental anesthetic tablet containing

adrin 1/100 grain and cocaine hydrochloride 1/10 grain.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

Æ names look for under *E*.

ADRIN, a brand of *epinephrine*, has been withdrawn from the market and replaced by a "purified extract of adrenal gland," standardized physiologically so as to correspond to 4 per cent. of epinephrine and therefore has about four times the strength of official desiccated suprarenal gland.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

AFERMOL is the dry serum of the blood of horses. It is used as a dusting powder on purulent wounds.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

AFRIDOL is described as being *mercury and sodium orthotoluylate*, or *sodium oxymercuri-orthotoluylate*, a substance containing about 50 per cent. of mercury combined in nonionizable form with carbon. It forms the basis of *afridol soap*, containing 4 per cent. of afridol, and used in parasitic skin diseases and for hand disinfection.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

A-F-SAL is the new cognomen applied to the article formerly marketed under the trade name *urasol*, and stated to be, chemically, *acid acetylmethylenedisalicylic;* "a compound formed by rearrangement of the molecules of acetic acid, formaldehyde and salicylic acid, and known by the abbreviation of these three names into the word a-f-sal.; a colloidal rather than crystalline, yellowish-white powder, insoluble in 1-per cent. hydrochloric acid." It is exploited as an antirheumatic. Dose, 90 to 120 grains in the course of a day.—Mfrs.: Organic Chem. Mfg. Co., Fort Washington, Pa.

AGAR-AGAR is a substance extracted in the East Indies from various seaweeds. It consists chiefly of gelose, and is odorless and tasteless, insoluble in cold water but soluble in hot water. Up to quite recently it was used only as a culture medium analogous to gelatin. Latterly it has been employed as a demulcent and for the treatment of constipation; it absorbs water in the stomach and intestines and forms a jelly, which being indigestible increases the bulk of the feces. Dose, 75 to 240 grains, administered in substance coarsely comminuted and mixed with food.—(Nonproprietary.)

AGAR-LAC Tablets "contain 4½ grains of agar-agar with lactic ferments and ½ grain of phenolphthalein." They are used as a laxative. Dose, 2 to 6 tablets per day.—Mfrs.: Agar-Lac, Inc.; agts.: E. Fougera & Co., New York.

AGARASE is the name applied to tablets said to contain agar-agar and Bulgarian lactic-acid bacilli culture. The article is intended for use as an antizymotic and bactericide in gastro-intestinal affections. Marketed only as tab-

lets, the dose of which is 3 with each meal.—Mfr.: F. Uhlmann-Eyraud, Geneva, Switzerland.

AGARICIN, in the pure state identical with *agaricic, agaricinic,* or *laricic acid,* and also known as *laricin,* is the active constituent of white agaric (polyporus officinalis, boletus laricus). It occurs as a white or yellowish powder almost insoluble in water but soluble in alcohol or alkali solutions. It is recommended as a remedy for the night-sweats of phthisical subjects. Dose, ⅙ to 1 grain; maximum dose, 1½ grains. (Nonproprietary.)

AGNIADIN is a glucoside recently introduced as a remedy for intermittent fever. It is believed to be identical with *plumiarid.* Dose, 2 to 4 grains.

AGOPYRIN is an influenza remedy marketed in tablets containing 0.025 gram each of cinchonine sulphate and ammonium chloride, and 0.25 gram of salicin.

AGURCARINA is a trade name for *saccharin.*

AGURIN is the terse name for *theobromine-sodium and sodium acetate,* $C_7H_7N_4O_2Na+NaC_2H_3O_2$. It occurs as a white, hygroscopic alkaline powder, containing 60 per cent. of theobromine, readily soluble in water and decomposed by acids, including atmospheric carbonic acid. It is incompatible also with saccharin, mucilaginous liquids and most of the alkaloidal reagents. It is employed as a pure diuretic said to be without action upon the heart—chiefly in dropsy of cardiac origin. Dose, 5 to 15 grains three or four times a day, usually in peppermint water, or as capsules or tablets. It must be kept securely stoppered and in a dry place, and its solutions freshly prepared. Rubbed with chloral hydrate, carbolic acid or piperazin, agurin yields a mass.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

AIODIN *(aiodin)* is an odorless and tasteless dry preparation of the thyroid gland, 1 part of which represents 10 parts of the fresh gland and contains 0.4 per cent. of iodine. It is marketed also in 0.1, 0.3 and 0.5 gram pastils, and is used in myxedema, cretinism, obstinate psoriasis, etc.

AIROFORM is an old synonym of *airol.*

AIROL, formerly marketed also as *airoform* and *airogen,* is *bismuth oxyiodogallate.* It results from the action of hydriodic acid upon bismuth subgallate or of gallic acid upon freshly-precipitated bismuth oxyiodide. It is a grayish-green, very bulky, impalpable, odorless, insoluble powder, containing 20 per cent. of iodine. Its principal employment is as in an odorless substitute for iodoform in wounds, ulcers, abscesses, burns, etc., but it is also used in various ocular, naso-pharyngeal, gynecological, and venereal diseases. It has a strong drying action which is wanting in iodoform. It is prescribed pure or mixed with talcum, boric acid, and the like; also in 5 to 20 per cent. ointments, pastes, or suspensions (in equal parts of glycerin and water). Airol should be kept in a dry place and

away from light. It is incompatible with calomel, tending to form red mercuric iodide therewith.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle, Switzerland, and New York.

AJACOL is described under *guaethol*, with which it is identical.

AKARALGIA is a granular effervescent laxative, antirheumatic and analgesic, based on a favorite prescription of Dr. B. K. Rachford for migraine. Each full dose represents dried sodium sulphate 30 grains, sodium salicylate from natural ("true") salicylic acid 10 grains, magnesium sulphate 50 grains, lithium benzoate 5 grains and tincture nux vomica 3 minims.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

ALBARGIN *(gelatose-silver)* is a compound of gelatose with silver nitrate, occurring as a voluminous, yellowish powder containing from 13 to 15 per cent. of silver and readily soluble in water. It is incompatible with tannin and chlorides. Its chief employment is in gonorrhea, though it is also used in infectious eye diseases, bladder trouble, and membranous colitis; usually in 0.1 to 0.2 per cent. solutions, though sometimes a 2 per cent. solution is prescribed, or 10 to 20 per cent. glycerin solutions. It is marketed only in 3-grain tablets. Distilled water should preferably be used in making solutions, and these should be dispensed in dark-amber or black bottles. If ordinary water is used, the water should gradually be added to the albargin with gentle shaking, and not the reverse lest the solution become turbid.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

ALBIODINE is a 12½ per cent. solution of iodine in a glycerin base. It is claimed to be neutral, soluble in water, non-irritating and without action on starch. It is employed as a succedaneum for the alkali iodides, hypodermically, internally or endermically.—Mfr.: Dr. J. L. Marbourg, Seattle, Wash.

ALBOLENE is a refined white petrolatum marketed by McKesson & Robbins, of New York. *Liquid albolene* is a colorless and odorless liquid petrolatum.

ALBULACTIN is the British trade name for what is known on this market as *lactalbumin*. See the latter title.

ALBUMOZO is said to contain 88.48 per cent. of casein, 2.57 per cent. of fat and 8.95 per cent. of mineral substances, among them being phosphate.

ALBUMIN TANNATE EXSICCATED.—See *tannalbin*.

ALCHO is a trade name for *aluminium carbonate*.

ALCOHOL, AMYLIC, TERTIARY.—See *amylene hydrate*.

ALCOHOL, CETYLIC, also known by the trade name of *æthol (ethol)* and the chemical designations normal primary *hexadecyl alcohol* and *palmityl alcohol*, though not a new product has only in recent years come to the fore as a skin emollient in chaps, prurigo, and weeping eczе-

ma. It forms white crystals soluble in alcohol and ether. It is generally used mixed with boric acid in proportions varying from equal parts to 1 in 5. It is derived from spermaceti by saponification with potash.—Mfrs.: E. Merck, Darmstadt, Germ., and others.

ALCOHOL OINTMENT is said to consist of 75 per cent. of alcohol with 25 per cent. of a potash soap, made into a solid mass by addition of calcined magnesia. It is intended for surgical use as a disinfectant.

ALCOHOL-SILVER OINTMENT consists of 0.5 per cent. of collargol, 70 per cent. of alcohol, soda soap, wax and a little glycerin, and is recommended by Löwe as the best form for using colloidal silver (collargol), because the hyperemia caused by the alcohol considerably increases the absorbing power of the skin and thus enhances and hastens the action of the drug. It is used in infectious inflammations, old ulcers of the leg, severe burns, chronic eczema, etc.—Mfrs.: Chem. Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

ALDOGEN is a preparation said to consist of paraform and calcium chloride, which liberates formaldehyde on contact with water. It is recommended as a convenient means for generation of formaldehyde for fumigation.

ALEUDRIN is the trade name adopted for *dichlorisopropyl alcohol carbamic acid ester*, an article occurring as a white, odorless, crystalline powder, readily soluble in alcohol, ether or chloroform, but sparingly soluble in water. It is used as a nerve sedative and soporific. Dose, 7½ to 15 grains.—Mfr.: Dr. Bruno Beckmann, Berlin, Germ.

ALEURONAT is a by-product in the manufacture of wheat starch, introduced as a diabetic flour. Mfr.: R. Hundhausen, Hammi, Germ.; agts.: Lehn & Fink, New York.

ALEXINE is a synonym of *tuberculocidin* (Klebs).

ALGIDINE is the name adopted to designate an inorganic poultice composed of kaolin, combined with glycerin and eucalyptol, menthol, thymol and boroglyceride.—Mfr.: Wm. S. Merrell Chem. Co., Cincinnati, O.

ALGINOIDS are metallic salts of alginic acid, $C_{76}H_{80}N_2O_{22}$, discovered by Stanford some years ago. Only the *iron* alginoid or alginate *(algiron)* has been used therapeutically. In the dry state this is a brown, tasteless, insoluble powder, containing about 11 per cent. of iron, and recommended by the introducer as an easily assimilable and non-irritating hematinic in doses of 2 to 10 grains. The trade name *algiron* has latterly been adopted for it.—Mfrs.: Evans, Sons, Lescher & Webb, Liverpool (Eng.) and New York.

ALGIRON.—See under *alginoids*.

ALKASAL is the name applied to *aluminium and potassium acetate*, used as an antiseptic and astringent.—Mfrs.: Athenstaedt & Redeker, Hemelingen, Germ.; agts.: Lehn & Fink, New York.

ALKASODYL is another brand name for *sodium cacodylate*.—Mfr.: Apotheker Wewiorski, Vienna, Austria.

ALKATHYPTOL *(liquor eucalypti compositus alkalinus)* is an alkaline solution analogous to the National Formulary *Liquor Antisepticus Alkalinus*.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

ALKAVENA is an alkaline digestive elixir each fluid ounce of which is said to represent avena sativa 8 grains, hydrastis 8 grains, xanthoxylum 8 grains, ginger 4 grains, gentian 4 grains, and sodium bicarbonate 4 grains. Dose, 1 to 4 fluid drams.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

ALLOPHANATES of a number of organic substances are described by Dr. Overlach as valuable additions to the materia medica. Allophanic acid, $NH_2.CO.NH.CO$, is without therapeutic action but possessing the peculiar chemical property of combining with certain liquid drugs to form dry compounds, which are claimed to be devoid of the disagreeable taste, odor or irritating properties of the active constituents in the free state. In the system allophanic acid is split up into carbonic acid and urea.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

ALLOSAN is the *allophanic acid ester of santalol*, or *santalol allophanate*, containing 72 per cent. of santalol. It is offered as a tasteless succedaneum for oil of sandalwood. (See also the article on *allophanates.)*—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

ALLYL SULPHOCARBAMIDE is a synonym of *thiosinamine*.

ALLYLSULPHOCARBAMIDE (THIOSINAMINE) BISMUTH TRIIODIDE is described as a chemical compound of thiosinamine and bismuth triiodide, having the formula $(C_3H_5)N_2H_2CS.BiI_3$. The drug is red, resinous in appearance; it is insoluble in water and weak mineral acids, and decomposed gradually by weak alkalies. It is soluble in alcohol, ether or chloroform with decomposition. It is introduced as a succedaneum for thiosinamine, with less irritating action on the mucosæ. Dose, 1 to 2 grains during the day with meals, as triturates named "cirrholysin," each of which contains 1/10 grain of the drug.—Mfrs.: Anglo-American Pharmaceutical Co.; agts.: E. Fougera & Co., New York.

ALOIN-FORMAL.—See *formaloin*.

ALOKATHOL is a liquid tonic and stomachic, containing calisaya, cascara, kola, bitter orange peel, gentian, pepsin, iron and aromatics. Dose, a teaspoonful.—Mfrs.: Tilden Co., New Lebanon, N. Y.

ALOPHEN pills are said to be a combination of aloin, strychnine, extract of belladonna leaves, powdered ipecac, and phenolphthalein. They are employed as a laxative.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

ALPHA-BROMISOVALERIANIC ACID ESTER.—See *eubornyl.*

ALPHABROMISOVALERYLAMINOACETPARAPHENETIDIN forms fine white needles melting at 155 to 156° C. It is credited with possessing antirheumatic, sedative, and hypnotic properties. Dose, 8 to 15 grains.

ALPHA-GUAIACOL is synthetic crystalline guaiacol.

ALPHA-NAPHTOL SALICYLATE, or ALPHA-NAPHTOL SALICYLIC ACID ESTER, is better known as *alphol*, which see.

ALPHOL *(alpha-naphtol salicylate*, or *alpha-naphtol salicylic acid ester)*, $C_6H_4(OH)COO.C_{10}H_7$, results from heating alpha-naphtol-sodium and sodium salicylate with phosphorus oxychloride. It is a reddish-white crystalline powder, soluble in alcohol, ether, and fatty oils. It is employed as an internal antiseptic in gonorrheal cystitis, summer diarrheas, typhoid fever, etc., and in rheumatism. Dose, 1 to 15 grains several times daily. It is prone to darken with age and exposure.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ALPHOZONE is the trade name applied to *succinic peroxide* or *disuccinyl peroxide* $(COOH.CH_2.CH_2.CO)_2O_2$. The article occurs as a white fluffy powder, having a characteristic taste that is described as not unpleasant in dilutions, soluble on agitation in 30 parts of water, stable, and non-explosive. It is employed as a germicide and antiseptic; externally on wounds or ulcers, in tonsilitis, leucorrhea, etc.; internally in typhoid fever, infectious diarrhea, abnormal fermentation and like intestinal disturbances. Dose, 1 grain. Marketed also as 1-grain tablets, which are used not only internally, but also for preparing disinfectant solutions (1 tablet in 2 fl. oz. water).—Mfrs.: F. Stearns & Co., Detroit, Mich.

ALSOL is a trade name for *aluminium acetotartrate*, as made by Athenstaedt & Redeker, Hemelingen, Germ.; agts.: Lehn & Fink, New York. Also marketed as 50-per cent. solution.

ALSOL CREAM is an antiseptic vulnerary ointment containing as its medicinally active ingredient aluminium acetotartrate.—Mfrs.: Athenstaedt & Redeker, Hemelingen, Germ.; agts.: Lehn & Fink, New York.

ALUMFORMASAL is the aluminium salt of methylenedisalicylic acid (formasal), used chiefly as an astringent dusting powder in naso-pharyngeal catarrh and ozena. Mfrs.: Organic Chem. Co., Fort Washington, Pa.

ALUMINIUM ACETOFORMATE, BASIC.—See *formeston.*

ALUMINIUM ACETOTARTRATE, also known as *alsol*, is an astringent and disinfectant employed in ½ to 2 per cent. solutions as a nasal douche in affections of the respiratory tract, in 1 to 3 per cent. solutions as a substitute for solution of aluminium acetate, in concentrated solution as a lotion in frost-bite and balanitis, and as a snuff with

boric acid in ozena. It occurs as colorless or yellowish crystals, freely but exceedingly slowly soluble in water, and insoluble in alcohol and ether.—(Nonproprietary.)

ALUMINIUM CARBONATE, $Al_2(CO_3)_3$, also known as *alcho*, it was hitherto impossible to prepare in a way that it would not immediately become decomposed into aluminium hydrate and carbon dioxide. Gawalowski has now succeeded in making a stable carbonate. This occurs as a chalky, white, readily pulverizable, tasteless substance, and has been recommended as a mild styptic, astringent, and antidiarrheal, in hematemesis, excessive perspiration, skin diseases, etc., analogously to aluminium acetate, burnt alum, etc. Dose, 5 to 15 grains.

ALUMINIUM CASEINATE is a product obtained by adding solution of aluminium acetate to milk freed from albumin and sterilized. It forms a yellowish, tasteless, insoluble powder, and is employed as an intestinal astringent. Dose, 3 to 5 grains.

ALUMINUM CHLORATE NEUTRAL.—See *Prophylacticum Mallebrin.*

ALUMINIUM GALLATE is described under *gallal.*

ALUMINIUM NAPHTHOLSULPHONATE.—See *alumnol.*

ALUMINIUM SALICYLATE, $(C_6H_4.OH.COO)_6.Al_2+3H_2O$, also known by the trade name *salumin*, occurs as a reddish-white powder, insoluble in water or alcohol but soluble in alkalies and ammonia. It is prescribed as a dusting-powder in nasal and laryngeal catarrhs, particularly in ozena.—Mfrs.: Riedel & Co., Berlin, Germ., and New York.

ALUMNOL *(aluminium beta-naphtol-disulphonate)*, $[C_{10}H_5.OH.(SO_3)_2]_3Al_2$, is obtained by the interaction of barium beta-naphtol disulphonate and aluminium sulphate; a white powder, readily soluble in water or glycerin but sparingly soluble in alcohol. Its action is that of an astringent antiseptic, and it is used chiefly in gonorrhea of women (1 per cent. solution), leucorrhea (in 1 to 5 per cent. solutions), as a dusting-powder in the nursery (1:4 to 1:9 of talcum or starch), and in abscesses (10 per cent. solution). It has also been employed in nose-bleeding, certain inflammatory skin diseases, purulent wounds, etc. Its aqueous solutions are incompatible with alkaline liquids, solutions of ammoniacal compounds, or silver salts.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

ALYPIN is a new substitute for cocaine hydrochloride as a local anesthetic. According to Drs. E. Impens and F. Hofmann, it is equally active but less toxic than cocaine, causes no mydriasis nor vaso-constriction (on the contrary, vaso-dilatation), and its solutions bear boili
about five minutes without decomposi
is defined as *benzoxydimethylaminom
butane hydrochloride.* It is a wh

scopic, bitter powder, melting at 169° C., and freely soluble in water and alcohol, yielding neutral solutions that can be sterilized by boiling for not over five minutes. Alypin is employed mostly in 2 to 4 per cent. solutions, just like cocaine hydrochloride.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ALYPIN NITRATE is intended for use instead of alypin in combination with silver nitrate, in which case the hydrochloride salt would be incompatible. It occurs as a white, crystalline powder melting at 159° C., readily soluble in water, alcohol and chloroform, and sparingly soluble in ether.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld, (Germ.) and New York.

AMBROSAN is a nutritive preparation said to consist of wheat-flour, cocoa, sodium chloride, hemaglobin, and lecithin.

AMENYL is defined as *methylhydrastimide hydrochloride*, $C_{22}H_{24}N_2O_5.HCl$, and occurs as yellow needles soluble in hot water. It is intended for use in amenorrhea and other menstrual disturbances. Dose, ¾ to 1½ grains twice daily.—Mfrs.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

AMIDIN.—See *holocaine*.

AMIDOAZOTOLUOL *(amidoazotoluene)* MEDICINAL is a pure grade of this azo dye, which Dr. Hayward considers the active constituent of scarlet red which has lately been found therapeutically serviceable and which is said to be the active ingredient of Prof. Schmieden's Scarlet R ointment. It occurs as a reddish-brown, crystalline powder, which turns yellow when rubbed up in a mortar. It is used in 5 to 10-per cent. ointments on suppurating wounds, cancerous growths, etc.—Mfrs.: Actiengesellschaft für Anilinfabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

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salt of the acid contained in the fruit of embelia ribes. It is a grayish-violet powder, soluble in diluted alcohol. It is used as a teniafuge, chiefly in children, in the dose of 3 grains with syrup or honey, preceded for three days by a milk diet and followed by a dose of castor oil.—Mfrs.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

AMMONIUM FLUORIDE was recommended a few years ago by Dr. Lucas in enlargement of the spleen, and later also in goiter and flatulent dyspepsia. It is given in doses of ¼ to ¾ grain after meals, either in pills, or (more frequently) well diluted in solution (10 grains in 6 oz.; a teaspoonful to a tablespoonful for a dose). Only the purest, medicinal or arsenic-free quality should be dispensed on prescriptions.—(Nonproprietary.)

AMMONIUM ICHTHYOLSULPHONATE.—See *ichthyol.*

AMMONIUM SULPHOICHTHYLOATE.—See *ichthyol.*

AMMONOL is a composite antipyretic and analgesic, consisting, according to reports from the chemical laboratory of the American Medical Association, essentially of acetanilid, 50 parts, sodium bicarbonate, 25 parts, ammonium carbonate, 20 parts, and traces of mentanil yellow. It forms a white powder, only partly soluble in cold water or alcohol. When rubbed dry with resorcin, thymol, carbolic acid, or chloral hydrate, it yields a mass or a liquid, according to the proportions used. Dose, 5 to 15 grains.—Mfrs.: Ammonol Chem. Co., New York.

AMMO-PHENIN is an "ammoniated phenylacetamide"—a mixture analogous to ammonol, antikamnia, etc. Dose, 5 to 10 grains.—Mfrs.: Ammo-phenin Chem. Co., St. Louis, Mo.

AMOLIN is an antiseptic and deodorant which, according to analyses in the chemical laboratory of the American Medical Association, is said to consist of 99 per cent. of boric acid with about 1 per cent. of thymol.—Mfrs.: Amolin Chem. Co., New York.

AMOPHEN is another of the numerous acetanilide mixtures exploited as an anodyne. It is stated to be a mixture of ammonium chloride, acetanilide, camphor, caffeine and sodium bicarbonate.—Mfrs.: Geo. H. Duell, Kittanning, Pa.

AMYL SALICYLATE was recently brought to the fore as a remedy in acute and subacute rheumatism by a French physician, Dr. M. B. Lyonnet, under the name *amylenol.* It is a faintly yellowish liquid of salol-like odor; soluble in alcohol, ether, or chloroform, but insoluble in water. Externally 30 to 45 minims are painted on the affected joint and this dressed with impervious material so as to prevent too rapid evaporation; internally 30 minims are given in the course of a day, in capsules generally. According to Hénon, it also acts well applied externally in hepatic colic.—(Nonproprietary.)

AMYL VALERATE, $C_{10}H_{20}O_2$, is the iso-valerianic ester of iso-amyl alcohol; a colorless liquid having when diluted

an odor of apples. It is soluble in alcohol, chloroform or ether, insoluble in water. Its specific gravity at 15° C. is about 0.858. It has been used in the treatment of gall stone colic. Dose, 3 to 6 minims in capsules, three times daily.—(Nonproprietary.)

AMYLENE CARBONATE.—See *aponal.*

AMYLENE HYDRATE, chemically known also as *tertiary amyl alcohol* and *dimethyl-ethyl-carbinol*, is a light, colorless, oily, hygroscopic liquid, of ethero-camphoraceous taste and odor, soluble in about 8 parts of water and miscible with alcohol, ether, or chloroform in all proportions. It was introduced by Prof. von Mering as a hypnotic and a nerve sedative, half as powerful as chloral hydrate and claimed to be less dangerous. Dose, 30 to 90 minims, usually prescribed in aqueous solution with extract of licorice.—(Nonproprietary.)

AMYLENOL is a French name applied to *amyl salicylate.*

AMYLOFORM is a condensation product of starch and formaldehyde, occurring as a white, odorless, insoluble powder. It is recommended as a surgical antiseptic, pure or in mixtures with boric acid, etc., just like iodoform. —Mfr.: Ludwig W. Gans, Frankfort-on-M., Germ.

ANADOL is a pulverulent antipyretic and analgesic of undivulged composition. According to an analysis made in the laboratory of the American Medical Association, the product consists essentially of acetanilid 79 per cent., caffeine 1 per cent. and sodium bicarbonate 20 per cent. Dose, 5 to 10 grains. Marketed also as 5-grain tablets.

ANÆ names look for under *ane.*

ANALGEN is better known on this market as *quinalgen* and will be described under the latter head.

ANALGESINE is one of the numerous synonyms of *antipyrin.*

ANALGESINE CAFFEINO-CITRATE is *migrainin.*

ANALGINE is *Mulford's compound acetanilide powder.* Each ounce contains acetanilide 219 grains, extract cannabis indica 11 grains, extract hyoscyamus 22 grains, sodium bicarbonate 22 grains, sodium salicylate 22 grains, camphor monobromated 22 grains, caffeine 27½ grains and aromatic powder, q. s.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

ANALGOS is a dental local anesthetic consisting essentially of 2 parts each of thymol, menthol, phenol, aspirin, and sodium chloride, and 1 part of cocaine hydrochloride, dissolved in 189 parts of dilute alcohol.—Mfr.: C. Stephan, Dresden, Germ.

ANARCOTINE.—See *narcotine.*

ANASARCIN Tablets are 7-grain tablets each representing scillipicrin 1 grain, extract oxydendron arboreum ¾ grain, extract sambucus canadensis ¾ grain, and employed as a diuretic.—Mfrs.: Anasarcin Chem. Co., Winchester, Tenn.

ANEDEMIN is the name applied to chocolate-coated tablets said to contain "the active principles of strophanthus, squill and apocynum, with sambucus as adjuvant." The article is advertised as a diuretic.—Mfrs.: Anedemin Chem. Co., Winchester, Tenn.

ANEMONIN or *pulsatilla camphor*, $C_{10}H_8O_4$, occurs as yellowish-white crystals, insoluble in water or cold alcohol, and employed as an antispasmodic and anodyne in asthma, whooping cough, dysmenorrhea, etc. Dose, ¼ to 1 grain twice daily; maximum dose, 1½ grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ANESTHAINE is a local anesthetic, "each fluid ounce of which contains 5 grains of stovaine with synergistic antiseptics in a sterile and ready-to-use solution."—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

ANESTHESIN is chemically *para-amidobenzoic acid ethyl ester* or *ethyl amidobenzoate*, $C_6H_4.NH_2.CO(OC_2H_5)$, 1:4; a white, odorless, tasteless powder, sparingly soluble in water, but readily soluble in alcohol, ether, chloroform, fats or oils. Prof. C. v. Noorden recommends it as a local anesthetic and sedative in gastric hyperesthesia, ulcer or cancer of the stomach, and dysphagia; and it is also used locally in laryngeal tuberculosis, painful hemorrhoids, etc. It is applied pure or mixed with an inert powder, in ointment, alcoholic or ethereal solution, or emulsion, or as suppositories and bougies. Dose, 4 to 8 grains two or three times a day, on an empty stomach, or ⅓ or ⅔ grain more frequently (in laryngeal troubles).—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

ANETHESIN SULPHOPHENATE or SULPHOPHENYLATE (sulphocarbolate) is a chemical synonym of the anesthetic and analgesic which is better known as *subcutin*.

ANESTHOL (Weidig) is the outcome of efforts of improving general anesthesia on the basis of Schleich's principle (adapting the boiling point of the narcotics to the temperature of the body), and is the logical supersedant of Schleich's ether-chloroform-benzin mixtures first advocated about twelve years ago. It is regarded by its introducer, Dr. Weidig, as a chemical combination or "molecular solution," and consists of 17 volumes of ethyl chloride, 35.89 of chloroform, and 47.1 of ether. It is a colorless liquid of agreeable odor, specific gravity 1.045, and boiling point 104° F. Anesthol is employed as an inhalation anesthetic. It is generally administered by the "drop" method; and some physicians give a dose of morphine hypodermically about half an hour before beginning with the anesthetic, and this is said to enhance the action and reduce the quantity required for narcosis.—Mfrs.: Chas. Cooper Co., New York; agts.: Lehn & Fink, New York.

ANESTHONE CREAM "contains 1 part to 20000 of

adrenaline chloride, and 10 per cent. paraamidoethyl benzoate, in a bland oleaginous base." It is employed as a local anesthetic and sedative in hay-fever, a portion as large as a pea being snuffed up three or four times a day or more often if necessary. Put up in collapsible tubes with elongated nozzles.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

ANESTOL is an anesthetic balm for local application in neuralgia, headache, and the like. It doubtless consists essentially of menthol and methyl salicylate, in a readily penetrating ointment base.—Mfr.: Norwich Pharmacal Co., Norwich, N. Y.

ANGIONEUROSIN is *nitroglycerin.*

ANILIN SULPHATE occurs in white crystals soluble in water and alcohol. It has been employed as a nervine in chorea and epilepsy, and as an analgesic and deodorant in carcinoma. Dose, ¾ to 1½ grains single, and up to 6 grains a day. It is quite poisonous.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ANILIPYRIN is an antiseptic and analgestic prepared by melting together 376 parts of antipyrin and 135 parts of acetanilid. It occurs as a white powder, readily soluble in water, and is employed chiefly in grip, articular rheumatism, and neuralgias. The dose is 5 to 10 grains which may be given three or four times daily. An *alpha-* and a *beta-* anilipyrin are distinguished.—Mfrs.: Gilbert & Yvon, Paris, France.

ANIOS is a disinfectant, said to contain formaldehyde and the sulphates of aluminum, iron, sodium and zinc.

ANNIDALIN is a synonym of *aristol* (thymol iodide).

ANODYNIN is another synonym of *antipyrin.*

ANODYNONE is a trade name of *ethyl chloride.*

ANOGON, $C_6H_2I_2OSO_3Hg_2$, is the mercurous salt of iodo-oxybenzol-parasulphonic acid, or *mercurous iodo-oxybenzol-parasulphonate.* It occurs as a very fine, microcrystalline, yellow powder, containing 48.5 per cent. of metallic mercury and 30.7 per cent. of iodine, and insoluble in water, ether, alcohol or glycerin. It is employed as an antisyphilitic: externally, in 1 to 10 per cent. ointments; by intramuscular injection, in 10-per cent. oily suspension. It must be kept protected against light.—Mfrs.: H. Trommsdorf, Aix-la-Chapelle, Germ.; agts.: Merck & Co., New York.

ANORRHAL suppositories are said to contain sodium sozoiodolate ⅓ grain, extract of witch hazel distilled 7½ minims, zinc oxide 6 grains, alumnol 2/5 grain, and extract of suprarenal gland 1/30 grain. They are put forward as a remedy in hemorrhoids.—Mfr.: Apotheke "Zur Austria," Vienna.

ANSAL is a fanciful name for *antipyrine salicylate* (salipyrine), formed from the two first syllables of the chemical designation.—Mfrs.: G. & R. Fritz-Petzold & Süss, Vienna, Austria.

ANTACETIN is a trade designation for *calcium saccharate.*

ANTASTHMOL is an oily liquid consisting of 1 part of anesthesin, 2 parts of subcutin, 0.3 part of methyl atropine hydrobromide and 100 parts of "stramonium liquor," containing the products of combustion of a mixture of saltpetre, stramonium and belladonna. It is used in an atomizer for paroxysms of bronchial asthma, and on cotton tampons introduced into the nostrils in hay-fever.—Mfr.: Dr. E. Ritsert, Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

ANTEMESIN is the fanciful disignation for capsules containing 1½ grains of anesthesin and hence used as an anodyne in gastric ulcer, nervous dyspepsia, etc.—Mfr.: Chem. Institute in Berlin S. W., Germ.

ANTHEOL is defined as "a pyroligneous distillate containing 5 per cent. of chemically combined sulphur. The exact chemical constitution of antheol, like other tarry distillates, has not been accurately determined." It is introduced for use as an antiphologistic, antipruritic dermic, analogous to ichthyol.—Mfr.: Vial, Paris, France; agts.: E. Fougera & Co., New York.

ANTHRAROBIN *(anthro-arobin, dioxyanthranol, leuco-alizarin)* is obtained from alizarin by reduction with zinc dust. It forms a yellowish granular powder, soluble in hot alcohol and in solutions of the alkalies, and was introduced as a substitute for chrysarobin in psoriasis, herpes and other skin diseases. It is generally prescribed in 10 to 20 per cent. ointments; sometimes in alcoholic solution. —Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ANTHRASOL is described as a purified and decolorized coal tar; coal tar freed from pitch, pyridine bases and coloring matter. It occurs as a light-yellowish oil of tarry odor, soluble in about 20 parts of 90 per cent. alcohol, and miscible in all proportions with absolute alcohol, acetone, fatty oils, liquid paraffin, or vasogen. It is said to penetrate the skin readily and thus have a deep action, to have more marked antipruritic effect than ordinary tar, and to be less irritating. It is used in skin diseases, in place of common tar, in 5 to 30 per cent. ointments or alcoholic solutions.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. and New York.

ANTIARTHRIN is a condensation product of equal parts of saligenin tannate and salicin. It occurs as a brown powder, soluble in alcohol and alkalies, and is employed chiefly as a remedy in rheumatism. Dose, 15 to 30 grains, up to 165 grains a day, in powders or pills. Dispensing it with other chemicals has been cautioned against, on account of its slight content of hydrochloric acid.—Mfrs.: L. Sell & Co., Munich, Germ.; agts.: Antiarthrin Co., New York.

ANTIBERIBERIN is a new remedy for beri-beri arising

so often in the tropics from excessive indulgence in rice. It is prepared from an alcoholic extract of rice bran, and is marketed as liquid, powder and pills. Its chemical nature has not been ascertained.

ANTICHOREN is a *peptonized mercuric chloroiodide* ($HgI_2+2HgCl_2$), resulting from the action of mercuric iodide and peptone upon mercuric chloride and occurring as a dark-brown, soft mass soluble in water. It is given in syphilis, internally as 1/6 grain pills or subcutaneously as 2 per cent. solution (15 minims per injection).—Mfr.: Dr. A. Horowitz, Berlin N, Germ.

ANTICONGESTICUS is a kaolin poultice containing as the medicamentous ingredients boric and salicylic acids, iodine, potassium iodide, thymol and oils of wintergreen and peppermint.—Mfrs.: Wm. R. Warner & Co., Philadelphia, Pa., and St. Louis, Mo.

ANTIDIABETIKUM OF LINDNER is better known as *glycosolvol*, which see.

ANTIDIPHTHERIN is a name applied to various preparations used in diphtheria. Antidiphtherin *Klebs* is obtained from cultures of diphtheria bacilli in a fluid medium, and is applied with a brush to the affected parts. Antidiphtherin *Wittstein* (made in Prof. Wittstein's Chemical Laboratory at Munich, Germany) is said to consist essentially of the resinous acids of olibanum, with salicylic acid, carbolic acid and menthol; it is a dry powder employed by fumigation. Finally there is a third antidiphtherin, made in Berlin (by Antidiphtheringesellshaft); a powder stated to consist of 91 parts of potassium chlorate and 4 parts of ferric chloride.

ANTIDOLORIN is a trade name for tubes of *ethyl chloride* used as local as well as inhalation anesthetics.—Mfr.: Norwich Pharmacal Co., Norwich, N. Y.

ANTIDYSENTERICUM OF KOEHLER is said to consist of logwood, pomegranate and simaruba barks. Used in dysentery.

ANTIFEBRIN is an American trade name and in Germany the official title for *acetanilid*.

ANTIFORMIN is a "bacterio-solvent disinfectant" introduced by Prof. Klebs and used in eczema and infantile and senile pruritus; also in the determination of tubercle bacilli in sputum and blood. It has been stated that it consists essentially of equal parts of Javelle water and a 15-per cent. solution of sodium hydroxide.—Agts.: American Antiformin Co., New York.

ANTIFUNGIN is a fanciful name for *magnesium borate*.

ANTIGERMIN is a disinfectant said to be a compound of copper with a weak organic acid; an odorless, greenish-yellow, semi-solid mass, soluble in about 200 parts of hot water. According to Dr. Wesenberg, it strongly hinders decomposition and exhibits marked bactericidal power.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ANTIHEMICRANIN is stated to be a mixture of 1 part each of caffeine and antipyrin, with 2 parts of sugar. It is given in doses of 10 to 20 grains, chiefly in migraine. —Mfr.: Apotheker Demelinne, Maastricht, Germ.

ANTIHERPIN is a herpes remedy consisting, according to the manufacturer, of liquid tar 10 parts, oil of rape seed 10 parts and Peru balsam 1 part.—Mfr.: J. Rössler, Frechen near Cologne, Germ.

ANTIKAMNIA was reported originally to consist of acetanilid, sodium bicarbonate, and a small quantity of caffeine. With the enactment of the food and drugs act of June 30th, 1906, however, the composition was apparently changed; and, according to analysis made in 1908 at the chemical laboratory of the American Medical Association, "the article now consists of acetphenetidin 72.05 per cent. and caffeine 13.95 per cent. The content of citric acid and sodium bicarbonate (by difference) was found to be 14 per cent." Antipyretic and analgesic. Dose, 5 to 15 grains. It is marketed also as tablets, plain and in various combinations.—Mfrs.: Antikamnia Chem. Co., St. Louis, Mo.

ANTIKOL was brought forward some years ago as an antipyretic and analgesic, but has latterly not been mentioned in the medical or pharmaceutical press. It was described as a mixture of acetanilid 30 parts, sodium bicarbonate 70 parts and tartaric acid 3 parts. Dose, 5 to 15 grains.

ANTILEPROL is purified chaulmoogra oil intended for use, as the name indicates, for the treatment of leprosy. Marketed in 0.5-gram and 1-gram capsules.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York. (It should be noted that the *crude* oil is being used with apparently good results in Manila.—Ed.)

ANTILUPIA "represents the active principles of the strobiles of humulus lupulus" [probably lupulin], acetanilide 54 per cent., caffeine 15 per cent., combined with sodium bicarbonate, rochelle salt and sodium bromide." It is exploited as an antipyretic and analgesic, and marketed also as 5-grain tablets and in combinations as tablets.—Mfr.: Norwich Pharmacal Co., Norwich, N. Y..

ANTILUSIN is an antilytic serum recommended for the treatment of topical ulcers and wounds, as well as internally in chronic gastric or duodenal ulcerations. It is offered in two forms: *Antilusin A*, for internal use; and *Antilusin B*, for local application. The former is normal serum from which the proteolytic enzymes have been removed, the antiferments being concentrated into a small bulk. Antilusin B is normal serum fortified, so far as concerns the antitryptic enzymes, by the addition of Antilusin A.—Mfrs.: Allen & Hanburys, London, Eng.

ANTIMARIN is a sea-sickness remedy, marketed in the form of tablets consisting essentially of 3 grains of anesthesin, and hence analogous to *antivom* pills.—Mfr.: Chem. Institute, Berlin SW, Germ.

ANTINOSIN *(nosophen-sodium)* is the sodium salt of nesophen (tetraiodophenolphthalein), occurring as a blue, amorphous powder of a faint iodine odor; soluble in water. It is used as a surgical antiseptic, also as a disinfectant in 0.1 to 0.5 per cent. solution in nose and throat troubles, cystitis, etc. On exposure to the air, it is very prone to become decomposed into nosophen and sodium carbonate and become insoluble; hence it should be kept securely stoppered.—Mfrs.: Chem. Fabrik Rhenania, Aix-la-Chapelle, Germ.

ANTIPARASITIN is a 1 per cent. solution of dinitro-cresol-potassium (antinonnin).

ANTIPERIOSTIN, originally called *ossoline*, is a 30 per cent. solution of cantharidinated mercury iodide, employed in veterinary medicine by inunction as a discutient.—Mfr.: Dr. A. Klein, Berlin W, Germ.; agts.: Ernest Bischoff & Co., New York.

ANTIPHLOGIN is a trade name for *antipyrine*.

ANTIPHLOGISTINE is a poultice originally said to consist of powdered kaolin, glycerin, boric acid, salicylic acid, ferric oxide, iodine, and the oils of peppermint, wintergreen and eucalyptus. According to later reports it consists of aluminium silicate, glycerin, small amounts of boric acid and salicylic acid, and traces of iodine and essential oils.—Mfrs.: Denver Chem. Co., New York.

ANTIPHTHSISIN (KLEBS) is better known as *tuberculocidin*, which see.

ANTIPRURIT is an ointment or cream the medicamentous constituents of which are carbolic acid, aluminum acetate, lead acetate, bornyl acetate and menthol.—Mfr.: Dr. Fritz Koch, Munich (Germ.).

ANTIPYRETICUM is a trade name for *antipyrin*.

ANTIPYRETICUM COMPOSITUM is a pulverulent mixture corresponding to *migrainin*, but made by Riedel & Co., Berlin and New York.

ANTIPYRIN ACETYLSALICYLATE is the chemical designation of *acopyrin*.

ANTIPYRIN AMYDGDALATE *(mandelate)* is marketed as *tussol*, which see.

ANTIPYRIN CAFFEINO-CITRATE.—See *migrainin*.

ANTIPYRIN-COLLODION is a 20 per cent. solution of antipyrin in collodion, recommended by Dr. Terson as a styptic for use on small wounds, either alone or with the addition of other medicaments.

ANTIPYRIN IODIDE is known to the trade as *iodopyrin*.

ANTIPYRIN METHYLETHYLGLYCOLATE is referred to under its trade name *astrolin*.

ANTIPYRIN SALICYLACETATE.—See *pyrosal*.

ANTIPYRIN SALICYLATE is better known by the name of *salipyrin*, which see.

ANTIPYRIN TANNATE is marketed as *tannipyrin*.

ANTIRHEUMATIN and ANTIRHEUMIN are synonyms of *fluorrheumin*, which see.

ANTISANGUIN, introduced by Dr. Schaefer, of Barmen, as a hemostatic and surgical antiseptic, is, according to Dr. J. Kochs, essentially a solution of about 30 grams of aluminum sulphate and 0.25 gram of salicylic acid in 69.75 grams of water.—Mfr.: Chem. Laboratory "Barmen," Barmen, Germ.

ANTISCLEROSIN is a remedy marketed in tablet form and corresponding to Trunecek's and Hoppe-Seyler's serum. Two tablets (the single dose) contain sodium chloride 0.77 gram; sodium sulphate 0.08 gram; calcium glycerophosphate, magnesium phosphate, and sodium carbonate, of each 0.03 gram; sodium phosphate 0.025 gram. It is employed in calcification of blood-vessels and in certain nervous diseases. Dose, 2 tablets three times daily.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

ANTISEPTIC CREDE is a trade name for *silver citrate* as sold in the American market by Schering & Glatz, New York. For description see silver citrate.

ANTISEPTICOL is a liquid antiseptic containing boric acid, sodium borate, benzoic acid, thymol, eucalyptol, menthol and oil wintergreen as the active ingredients. It is analogous to the official *liquor antisepticus*.—Mfrs.: G. F. Harvey Co., Saratoga Springs, N. Y.

ANTISEPTIN Radlauer *(zinc boro-thymol-iodide)* is a mixture of zinc sulphate 85 parts, thymol 2½ parts, zinc iodide 2½ parts, and boric acid 10 parts. It is used as a vulnerary. Antiseptin *Schwarzlose*, a veterinary prophylactic and remedy, is said to be a solution of 40 parts of zinc sulphate and 4 parts of alum in 100 parts of water.

ANTISPASMIN is the trade name given to *narceine-sodium and sodium salicylate*, $C_{23}H_{29}NO_9.Na+3C_6H_4.OH.COONa$; a white, hygroscopic, unstable powder containing 50 per cent. of narceine, soluble in water when freshly made but becoming insoluble and dark-colored on exposure. It is employed as an antispasmodic, particularly in whooping-cough of children, in doses of 1/6 to ¾ grain three or four times a day, usually given in sweetened solution. Antispasmin must be kept well protected against light and air.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ANTISPIROCHETIC SERUM.—See under serums.

ANTISTAPHYLOCOCCUS SERUM and ANTISTREPTOCOCCUS SERUM.—See under serums.

ANTISTREPTOCOCCIN is Marmorek's *antistreptococcus serum;* which see.

ANTITETANIC DUSTING-POWDER is a mixture of equal parts of dry antitetanic serum and chloretone, used on wounds causative of tetanus.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

ANTITETANIC GLOBULINS is a name given to a dried

preparation of the globulins of antitetanic serum and afford a convenient remedy for immediate use in tetanus.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

ANTITETANUS SERUM.—See under serums.

ANTITHERMOLINE is analogous to *cataplasm kaolin* U. S. P.—Mfrs.: G. W. Carnrick Co., New York.

ANTITHYROIDIN is a thyroid serum introduced by Prof. Moebius. It is obtained from the blood of sheep from which the thyroid gland has been removed six weeks previously, and contains ½ per cent. of carbolic acid as a preservative. It occurs as an amber-colored liquid with a faint odor and taste of phenol, and is marketed in 10 c.c. vials and as 0.5 gram tablets. It is used in Basedow's disease (exophthalmic goiter), usually per os in doses of 8 minims gradually increased to 70 minims thrice daily; sometimes it is given hypodermically, 15 to 30 minims per dose daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ANTITOXIN, DIPHTHERIA, is regarded by many physicians as the best constitutional means for the treatment of true diphtheria. It is obtained from the blood of horses that have been immunized against the disease by successive inoculations with the specific poison of diphtheria. It is prepared in various concentrations, and put up in variously devised and dated tubes, bulbs, etc., containing a specified number of "immunity units," and usually contains carbolic acid or some other antiseptic as a preservative. It is used almost exclusively subcutaneously; some have given it intravenously and others per os, with reported good results. The ordinary dose injected is 2,000 to 3,000 immunity units, but as much as 20,000 units have been given as the initial dose in exceedingly severe cases, and 60,000 units have been employed successfully in treating the same case. While employed generally in diphtheria, the antitoxin has latterly also been recommended for use in severe scarlet fever cases and in the broncho-pneumonia and other secondary pneumonias complicating the various infectious diseases of children. Diphtheria antitoxin should be kept cool and be disturbed as little as possible; when it has reached the age-limit indicated on the labels, it should be exchanged for a fresh lot.

ANTITOXIN, HAY FEVER.—See *pollantin*.

ANTITUMIN is described as a 2½-per cent. solution of sodium-chondritine sulphate, containing also ¼ per cent. of eucaine. The salt named is said to be a normal constituent of cartilage, the arteries, etc. It occurs as a white or yellowish powder, readily soluble in water, but insoluble in alcohol or ether. It is used by intravenous injection in the treatment of cancer. Dose, 1 fluid dram daily.—Mfrs.: J. D. Riedel Co., Berlin (Germ.) and New York.

ANTITUSSIN, as known on the market, is a 5 per cent.

ointment of difluordiphenyl, which is prescribed chiefly in whooping cough but to a small extent also in tonsilitis and in inflammatory pharyngeal and bronchial affections. The dose per inunction is 5 grams.—Mfrs.: Valentiner & Schwarz, Leipsic-Plagwitz, Germ.; agts.: C. Bischoff & Co., Inc., New York.

ANTODYNE is defined as *phenoxypropanediol* of the formula $C_6H_5OCH_2CHOH.CH_2OH$. It occurs in fine, white needles, soluble in water, alcohol, chloroform or ether. It is employed as an analgesic as well as nerve sedative. Dose, 8 to 12 grains, in wafers.—Mfrs.: Poulenc Frères, Paris, France; agts.: Parmele Pharm. Co., New York.

ANUSOL Hemorrhoidal Suppositories contain, according to the manufacturers, in each dozen, anusol 7.5 grams, zinc oxide 6 grams, balsam peru 1.5 grams, cacao butter 19 grams, cerate 2.5 grams. Anusol is defined as "bismuth iodoresorcinsulphonate of the formula $[C_6H_2ISO_2.O(OH_2)]_3Bi$."—Mfrs.: Goedecke & Co., Leipsic and Berlin, Germ.; agts.: Schering & Glatz, New York.

ANYTIN is a 33⅓ per cent. aqueous solution of ichthyolsulphonic acid, which is used to some extent in 1 to 2 per cent. solutions as a surgical disinfectant but chiefly as a means of rendering water-insoluble medicaments soluble in water. A number of such solutions are marketed under the generic name "*anytoles*," the principal ones being *eucasol* and *metasol;* the former is a 25 per cent. solution of eucalyptol in anytin, and metasol is a 40 per cent. solution of meta-cresol. Besides these two, there are made anytoles of cresol (50 per cent. cresol), creosote (40 per cent.), guaiacol (40 per cent.), benzol (20 per cent.), peppermint oil (25 per cent.), wintergreen oil (20 per cent.), turpentine oil (15 per cent.), camphor (15 per cent.), and iodine (10 per cent.).—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

APERGOLS are capsules containing apiol, ergotin, savine oil, aloin, and aromatics. They are prescribed in amenorrhea and dysmenorrhea, 1 to 2 capsules thrice daily.—Mfrs.: H. K. Wampole & Co., Philadelphia, Pa.

APERITOL is the name applied by Drs. Hammer and Vieth to *valeryl-acetyl-phenolphthalein*, which is put forward as an aperient free from untoward by-effect and not liable to produce tolerance. It is marketed in the form of tablets, each containing 0.2 gram of the drug.—Mfrs.: Riedel & Co., Berlin and New York.

APHTHISIN is a combination of 9 parts of potassium guaiacolsulphonate (better known as thiocol) and 1 part of petrosulfol (Austrian ichthyol). It is marketed as a syrup (6 per cent.), and as 4-grain capsules; the dose of the former is a teaspoonful to a tablespoonful; of the capsules, 1 to 4, three or four times a day.—Mfrs.: G. Hell & Co., Troppau, Austria.

APINOL is said to be obtained from the destructive distillation of the wood of Pinus palustris and Pinus

australis. It is a clear, amber-colored liquid with an odor resembling that of the pine, having a specific gravity of about 0.946, and neutral in reaction. It is used locally as a surgical antiseptic and vulnerary, and internally as an expectorant. Dose, 5 to 15 minims, on sugar.—Mfr.: Apinol Chem. Co., Wilmington, N. C.

APIOL CRYSTALLIZED *(parsley camphor)*, $C_{12}H_{14}O_4$, forms long colorless needles having a faint odor of parsley and melting at 86° F. It is insoluble in water, but readily soluble in alcohol, ether and oils. It is used as an emmenagogue and antiperiodic. Dose, 2 to 5 grains in capsules; as an antiperiodic, 5 to 15 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

APIOL, GREEN, is the *crude ethereal oil of parsley seed*, occurring as a greenish, oily liquid, insoluble in water but soluble in alcohol, ether or chloroform; specific gravity about 1.05. It is used as an emmenagogue. Dose, 5 to 15 minims, in capsules.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

APIOLINE is described by Chapoteaut, its introducer, as the active principle of parsley and quite different from apiol. It is obtained from ethereal oil of parsley seed by distillation and saponification, and occurs as a thick, reddish liquid of the specific gravity 1.113 and readily soluble in alcohol. It is prescribed in amenorrhea and dysmenorrhea. Dose, daily 2 or 3 of the 3-grain capsules in which form only the preparation is marketed.—Mfr.: Vial, Paris, France; agts.: E. Fougera & Co., New York.

APOCODEINE HYDROCHLORIDE, $C_{18}H_{19}NO_3.HCl$, is the salt of a derivative of codeine; a yellowish-gray to greenish-gray, hygroscopic powder, freely soluble in water. In action it is in the main analogous to codeine, and has hence been used as an expectorant and sedative, chiefly in chronic bronchitis; but latterly it has come into prominence as a subcutaneous laxative, 30 to 40 minims of a 1 per cent. solution being the usual dose per injection for this purpose. Dose, per os, ⅛ to 1 grain.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

APOLYSIN is a substance closely related to phenacetin, a *citro-paraphenetidin*, or *monocitryl-paraphenetidin*. It occurs as a white powder of faint odor and acidulous taste; moderately soluble in water, more freely so in alcohol or glycerin. It behaves as an acid (monophenetidin-citric), and is employed therapeutically as an antipyretic and analgesic claimed to be comparatively non-toxic and non-cumulative. Dose, 10 to 30 grains.—Mfrs.: Von Heyden Chem. Works, Radebeul near Dresden, Germ.; agts.: Schering & Glatz, New York.

APOMORPHINE BROMOMETHYLATE or METHYL-BROMIDE is described under its trade name *euporphin*.

APONAL is the carbonic acid ester of amylene or *amylene carbamate*, obtained by the action of urea hydrochloride on amylene hydrate, of the formula $NH_2CO.OC.(CH_3)_2$.

C_2H_8. It occurs as colorless crystals having a camphoraceous odor and taste, melting at 83° to 86° C., readily soluble in alcohol or chloroform, and insoluble in water. It acts as a nerve sedative and hypnotic. Dose, 15 to 30 grains.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

APYROL is an antipyretic and antineuralgic said to consist of a mixture of about 52 parts of antipyrin and 48 parts of quinine sulphate. Dose, 10 to 20 grains.

AQUA ZEOZONI is the name to a solution of the ortho-oxy derivative of esculin, neutralized with 0.3 to 0.5 per cent. of boric acid. The article occurs as a yellowish-brown liquid, and said to possess the property of absorbing the ultraviolet rays of light. It is consequently used in eye practice to overcome the dazzling effect of sunlight. It is also said to prevent sunburn if applied locally to exposed parts.—Mfrs.: Kopp & Joseph, Berlin, Germ.

ARABELLA WATER is a Hungarian bitter water, consisting essentially of magnesium sulphate (22 grams per liter), sodium sulphate (15.4 grams), calcium sulphate (1.5 grams), magnesium chloride (0.8 gram), and magnesium carbonate (1.26 grams).

ARBULITH is a tablet containing 3½ grains of hexamethylenamine, 1½ grains of lithium benzoate and ½ grain of arbutin. It is used as a urinary antiseptic and antilithemic. Dose, 2 tablets three or four times daily.—Mfrs.: The Marcy Co., Boston, Mass.

ARBUTIN, $C_{12}O_{16}O_7+½H_2O$, is a glucoside residing in uva ursi; white, odorless crystals, quite freely soluble in water or alcohol, but insoluble in ether. It is used in place of uva ursi preparations as a diuretic and vesical demulcent. Dose, 3 to 6 grains three or four times daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ARECOLINE-ESERINE is a mixture of equal parts of arecoline hydrobromide and eserine sulphate, intended for use as a myotic or in veterinary practice as a cathartic similar to its components. Dose (horses), ¾ to 1½ grains hypodermically.

ARECOLINE HYDROBROMIDE, $C_6H_{13}NO_2.HBr$, is a salt of the alkaloid of areca nut, occurring as white crystals easily soluble in water and alcohol. It is used chiefly in veterinary medicine, as an active cathartic similar to eserine in action; 1 to 1½ grains is injected subcutaneously in horses in cases of colic. In human medicine it serves as a myotic, a few drops of a 1 per cent. solution being instilled at a time, and as an anthelmintic (1/15 to 1/10 grain.—(Nonproprietary.)

ARGATOXYL is a 10-per cent. suspension of silver-atoxyl (silver para-amidophenylarsinate) in olive oil. It is used mainly in puerperal fever.

ARGENOL is an "albuminoid of silver" occurring as a brown, neutral powder containing 10 per cent. of silver and readily soluble in water or glycerin. It is used as

an astringent bactericide, like silver nitrate, but is claimed to be less irritating and more penetrating.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

ARGENTAMINE is one of the first attempts at the modern organic compounds of silver; a 10 per cent. solution of silver nitrate in 10 per cent. ethylenediamine solution. It occurs as a colorless, alkaline liquid, which does not give precipitates with sodium chloride or albuminous fluids, and is freely miscible with water. Its chief use is as an application in gonorrhea and in purulent or follicular conjunctivitis; but it has been given internally, a teaspoonful to a tablespoonful of a ½ to 1 per cent. solution containing a little glycerin every two or three hours, in phthisical diarrhea and obstinate entero-colitis. It is applied in gonorrhea in ¼ to 4 per cent. solutions; in eye disease, in 5 per cent. solution. It should be preserved in dark-glass bottles; discoloration is said not to affect its activity, and usually to be removable by filtration through paper.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

ARGENTARSYL is a mixture of iron cacodylate and colloidal silver.

ARGENTIDE is a solution of silver iodide in potassium iodide solution containing 100 grains of the former per fluid ounce. When diluted with water it throws out a flocculent precipitate of silver iodide which remains well suspended. It is used locally in place of silver nitrate.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

ARGENTIFORM *(silver-hexamethylenamine)* is a compound of silver and hexamethylenamine, containing about 35 per cent. of silver, and forming minute, colorless, odorless crystals soluble in 500 parts of water. Its solutions do not stain nor coagulate albumin. It is used as an astringent bactericide. Marketed only as urethral bougies (¼ grain), vaginal cones, and ointment (0.1 per cent).—Mfrs.: Nelson, Baker & Co., Detroit, Mich.

ARGENTOSE is a synthetic compound of silver and a nucleo-proteid, containing 30 per cent. of silver. It occurs as black scales, freely soluble in water or glycerin. It is used chiefly in gonorrhea (2 to 20 per cent. solutions) and purulent eye disease (up to 50 per cent. solutions).—Mfrs.: H. K. Wampole & Co., Philadelphia, Pa.

ARGONIN *(silver-casein)* results from the interaction of casein-sodium and silver nitrate. It is a nearly white powder containing about 4.2 per cent. of silver and readily soluble in hot water, sodium chloride solution and alkaline solutions. It is employed principally in gonorrhea, in 2 to 10 per cent. solutions, which should always be prepared fresh and dispensed in dark-amber bottles.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

ARGYDIDE *(milk of silver iodide)* is a new preparation of silver representing a creamy-white suspension of silver

iodide, offered as a wound antiseptic and bactericide, claimed to be free from irritating action.—Mfrs.: Argydide Chem Co., Philadelphia, Pa.

ARGYROL is an organic compound of silver *(silver-vitellin)* introduced by Dr. A. C. Barnes. It contains from 20 to 25 per cent. of metallic silver. It occurs in black, glistening, hygroscopic scales, freely soluble in water and glycerin, insoluble in alcohol or oils. The claims are made for this article that it is perfectly non-irritating even when used in concentrated solution and that its solutions keep without deteriorating. Its therapeutic uses are the same as those of the older silver salts—in gonorrhea, infectious diseases of the eye, naso-pharyngeal affections, etc. It is applied in 2 to 5 per cent. injections in urethritis, and in 5 to 50 per cent. solutions in some other ailments.

ARHOVIN is described as a solution of diphenylamine and thymol benzoate in ethyl benzoate. It is a liquid of the specific gravity 1.055, and of aromatic odor and burning taste; insoluble in water; soluble in ether, chloroform, or alcohol. It is used as an adjuvant in gonorrhea, internally, several 0.25-gram capsules per day.—Mfrs.: Goedecke & Co., Leipsic and Berlin.; agts.: Schering & Glatz, New York.

ARISTOCHIN or *aristoquin*, chemically definable as *diquinine carbonic ester*, or *neutral carbonic ester of quinine*, $C_{41}H_{46}N_4O_8$, occurs as a white practically tasteless powder containing 96 per cent. of quinine alkaloid, soluble in chloroform, alcohol, or acids, yielding bitter solutions; difficultly soluble in ether, and insoluble in water. It is heralded simply as a tasteless form of quinine which but seldom irritates the stomach or produces cinchonism and the other toxic effects of ordinary quinine. Its dosage is the same as that of the usual quinine compounds. It is largely used for children, especially in whooping-cough.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germany) and New York.

ARISTOL is a trade-name for *dithymol diiodide* or *diiodo-dithymol* or the official *thymol iodide*.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germany) and New York.

ARRHENAL is a French trade-name for *disodium methylarsenate* or *sodium methylarsenate*, and will be referred to under the former chemical designation.—Mfrs.: Adrian & Co., Paris; agts.: E. Fougera & Co., New York.

ARRHENAL-LITHIUM is defined as *lithium chlorhydromethylarsenate*, and recommended as a readily assimilable arsenical compouud.

ARSACETIN is a trade name for *sodium acetyl-arsanilate* or *acetylamino-phenylarsinate*, or *acetyl-atoxyl*. The article occurs as a white, odorless, tasteless powder, soluble in about 10 parts of water and sterilizable in solution without decomposition. It is used as an alterative in obstinate skin diseases, syphilis, trypanosomiasis, anemia,

etc. It is claimed to be less toxic than atoxyl and the usual arsenicals, yet untoward by-effects have been observed from its use. Dose, ¾ to 1½ grains three or four times a day; hypodermically, 1½ to 7½ grains twice a week.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

ARSAMIN is another trade name for *sodium arsanilate*, an article better known on the American market as *atoxyl*, which see for description.

ARSAN *(arsen-glidine)* is an organic compound of arsenic with wheat protein, and occurs as a grayish-yellow powder insoluble in water but soluble in solutions of the alkali hydroxides. It is offered as a supersessor of arsenous acid in chronic skin diseases. It is marketed as tablets, each representing 0.002 gram of arsenic.—Mfr.: Dr. V. Klopfer, Dresden-Leubnitz, Germ.; agts.: Menley & James, New York.

ARSANIL is a new designation for *atoxyl*.

ARSEN-BLUTAN is an alcohol-free solution of iron peptonate with manganese and arsenic, containing 0.6 per cent. of iron, 0.1 per cent. of manganese, and 0.01 per cent. of arsenous acid. It is used as a hematinic and alterative. Dose, 1 to 2 fluid drams.—Mfrs.: Chem. Fabrik Helfenberg, Helfenberg, Germ.; agts.: C. Reinschild Co., New York.

ARSEN-METAFERRIN.—See under *metaferrin*.

ARSENAURO is a solution of gold and arsenic bromides, each 10 drops of which contains 1/32 grain each of arsenic bromide and gold tribromide. It is used as an alterative, nerve tonic and antidiabetic. Dose, 3 to 10 minims. [The N. F. *Solution Bromide of Gold and Arsenic* is an analogous product.—Ed.]—Mfrs.: Parmele Pharmacal Co., New York.

ARSEN-FERRATIN is an arsenated ferratin containing 0.06 per cent. of arsenous acid; a red powder of peculiar odor. Dose, 5 to 10 grains three times daily.—Mfrs.: C. F. Boehringer & Soehne, Mannheim-on-Rh., Germ.; agts.: Merck & Co., New York.

ARSEN-FERRATOSE is an elixir of arsen-ferratin (arsenated ferratin), containing 0.3 per cent. of metallic iron in organic combination and 0.003 per cent. of arsenic in the form of arsenous acid. It is employed as a hematopoietic and alterative. Dose, a tablespoonful three or four times a day; children, a teaspoonful to a dessertspoonful.—Mfrs.: C. F. Boehringer & Soehne, Mannheim-on-Rh., Germ.; agts.: Merck & Co., New York.

ARSEN-GLIDINE is marketed under the name of *arsan*; see this title.

ARSEN-HEMOL is hemol containing 1 per cent. of arsenous acid; a brown, insoluble powder, employed as an alterative and hematinic in skin diseases, neuroses, etc. Dose, 1½ to 5 grains, two or three times a day, generally

prescribed in pills.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ARSENO-CEREBRIN is a sterilized solution of sodium cacodylate and cerebrin, used by injection in epilepsy. Marketed in 2-c.c. ampoules.

ARSENO-PHENYLGLYCIN. See *spirarsyl.*

ARSENO-STYRACOL tablets contain 0.5 gram of styracol and 0.001 gram of arsenic. They are used chiefly in phthisis and putrefactive intestinal catarrh. Dose, 1 tablet three or four times daily.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

ARSENO-TRIFERRIN is an orange-colored, tasteless powder, soluble in dilute alkalies, and contains about 16 per cent. of iron, 0.1 per cent. of arsenic, and 2.5 per cent. of phosphorus organically combined. It is used in anemia, neurasthenia, skin diseases, etc. Dose, 5 grains three times daily.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

ARSENO-TRIFERROL is a dark-red, aromatized solution of arseno-triferrin.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

ARSOFERRIN is defined as "a chemical compound of arsenous acid and iron glycerophosphate, containing the iron in organic, so-called colloidal form." It is insoluble in water as well as in diluted acids, and intended for use as an alterative and hematinic. Marketed only as 4-grain "teklolettes," each of which represents ferric oxide 0.0213 gram and arsenous acid 0.00058 gram, together with phosphoric acid, albumin, and extract gentian. Dose, 1 or 2 thrice daily.

ARSYCODILE is a trade name for *sodium cacodylate* marketed abroad in tubes containing 0.05 gram in sterilized solution intended for hypodermic or rectal use, and as 0.025-gram pills. *Fer-* or *ferro-arsycodile* is iron cacodylate in pill form (0.025 gram each).—Marketed by E. Fougera & Co., New York.

ARSYLIN *(arsen-protylin)* is an arsenic, phosphorus and albumin compound containing 0.1 per cent. of arsenic acid and 2.6 per cent. of phosphorus. It occurs as a yellowish-white, odorless powder, of faint acidulous taste, and absorbed only on reaching the intestines. It is prescribed as an alterative tonic.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

ARSYNAL is another trade name for *disodium methylarsenate.*

ASBRADON is bradon said to contain in each 15 grams 0.0005 gram of arsenous acid. It is employed as a nervine. —Mfr.: Dr. Lutzsche Apotheke, Göppingen, Germ.

ASEPSIN is a white, crystalline powder, of alkaline reaction and a sweet, strongly wintergreen taste; it is made from methyl salicylate, and is used in weak solutions as a surgical antiseptic. Marketed also as *asepsin soap.*—Mfrs.: Lloyd Bros., Cincinnati, Ohio.

ASEPTESIA is *Mulford's fluid magnesia antiseptic*, each fluid ounce of which contains magnesium hydrate 24 grains, thymol 1/32 grain, oil peppermint ⅝ minim, oil gaultheria ¼ minim, oil cardamom ⅛ minim, and saccharin 1/16 grain. It is used as an antacid dentifrice and mouthwash.—Mfr.: H. K. Mulford Co., Philadelphia, Pa.

ASFERRIN.—See *asferryl*.

ASFERRYL (previously known as "asferrin") is "an iron salt of the complex arsenic tartrate," occurring as a greenish-yellow powder, soluble with difficulty in water and dilute acids but readily soluble in dilute alkalies; it contains 23 per cent. of arsenic and 18 per cent. of iron. It is offered as a relatively non-toxic arsenical and chalybeate tonic, in the form of 0.5-gram tablets, each of which contains 0.025 gram of asferryl and 0.475 gram of a mixture of chocolate and vanillin sugar. Dose, 2 to 4 tablets daily.—Mfr.: Dr. Carl Sorger, Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

ASIPHYL is a trade name for *mercuric amidophenylarsenate* or *mercury atoxylate*. See *mercury atoxylate*.

A—S—PHEN is the new designation applied to what was formerly known as *thermol*. The name has been constructed from certain letters of its chemical name *a*cetyl-*s*alicyl-*phen*etidin. It occurs as a white, odorless, tasteless powder, and is used as an antipyretic and analgesic. Dose, 10 to 30 grains. Mfrs.: Organic Chem. Mfg. Co., Fort Washington, Pa.

ASPIRIN is the trade designation for *acetylsalicylic acid* or *salicylic acid acetic ester* which occurs as white needles that are difficultly soluble in water but readily so in alcohol or ether. It is decomposed in solution and is incompatible with alkalies; hence it should be administered by itself in powder form. It is used as a substitute for sodium salicylate in rheumatism, neuralgia, diabetes, etc., and is given in the same doses as the latter drug.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ASPIRIN SOLUBLE is *calcium acetylsalicylate* as made by the Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ASPIROCHYL is the trade name of *mercury paraminophenylarsinate*, a white powder almost insoluble in water, and used hypodermically as well as locally in syphilitic affections. Dose, by injection, 15 minims of a 1:20 suspension in liquid petrolatum or glycerin. Used topically as 1:20 or 1:30 ointments.

ASPIROLITHINE is "a combination of aspirin with organic acid salts of lithium, prepared in tablet form, each tablet containing 5 grains of aspirin and 2½ grains of acid citrotartrate of lithium." It is acid in reaction and hence incompatible with alkalies and their carbonates. It is used as an analgesic and antirheumatic like salicylic acid. Dose, 1 to 3 tablets, with a copious draught of water.—Mfrs.: McKesson & Robbins, New York.

ASPIROPHEN is a new antirheumatic and analgesic introduced by Dr. Schwarzenberg for use in rheumatism and allied affections in which salicylic acid and a bacteri cide are indicated at the same time. Chemically it is *amido-para-phenetidin acetylsalicylate*, $C_6H_4.OC_2H_5:NH.CO=CH_2NH.COCH_3$. It is credited with marked antipyretic and analgesic properties, and is said to produce far less perspiration than does aspirin. Dose, 5 to 15 grains.—Mfr.: Chem. Fabrik "Falkenberg," Falkenberg-Grünau, near Berlin; agts.: Allarius Co., San Francisco, Cal.

ASQUIRROL is a water-soluble mercurial containing about 56 per cent. of Hg, and specially intended for hypodermic use in syphilis during pregnancy.—Mfrs.: Poulenc Fréres, Paris, France.; agts.: Parmele Pharm. Co., New York.

ASTEROL is a double salt of mercury paraphenolsulphonate (sulphocarbolate) and ammonium tartrate, of the formula $C_{12}H_{10}O_8S_2Hg.4C_4H_9O_6(NH_4)_2+8H_2O$; a yellowish powder, containing 15 per cent. of mercury, and soluble in hot water, the solution remaining clear on cooling. Ammonia and alkalies do not precipitate the mercury from solutions. It is claimed to possess all the advantages of corrosive sublimate as a disinfectant without its drawbacks. It is used in 2 to 5:1000 solutions; also by intramuscular injection in syphilis, 15 minims of a 4 or 5 per cent. solution. It is marketed also as 0.2-gram tablets.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

ASTROLIN is described as a compound of antipyrin with methylethyloxyacetic acid, that is *antipyrin or phenyldimethylpyrazolon methylethylglycolate*. It contains about 61 per cent. of antipyrin, and occurs as a white powder of faint odor and pleasant acidulous taste. It is offered as an antipyretic and analgesic. Dose, 8 to 15 grains.—Mfrs.: Riedel & Co., Berlin and New York.

ASUROL is defined as "amido-oxyisobutyric acid-oxymercurisalicylate of sodium." It contains about 40 per cent. of metallic mercury and has been introduced as a water-soluble mercurial for subcutaneous and intramuscular injection. It is marketed also in ampuls containing 2.2 c.c. of a 5 per cent. solution, which quantity constitutes a hypodermic dose.—Mfr.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ASYPH is the name applied to cacao butter bougies containing 0.02 gram and 0.05 gram, respectively, of metallic mercury, and intended for use as an antisyphilitic in the place of inunctions with blue ointment.—Mfr.: Apoth. Cornelius, Strassburg, Germ.

ATOPHAN *(phenyl-quinoline-carbonic acid)* crystallizes in small, colorless, bitter needles melting at 208° to 209° *C., insoluble in* water but readily soluble in alkali solu*tions or hot alcohol.* It is used as an eliminant of uric *acid in gout, articular* rheumatism and other conditions

dependent upon an excess of uric acid in the system. Dose, 7½ to 15 grains three or four times a day, with a copious draught of water, liberal doses of sodium bicarbonate being preferably taken simultaneously to prevent precipitation of free uric acid from the urine with possibly resulting renal colic. Marketed only as 7½-grain tablets.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

ATOXYL is a brand of *sodium arsanilate* or *sodium aminophenylarsonate*, containing about 26 per cent. of arsenic and corresponding to the formula $C_6H_4(NH_2).(AsO.OH.ONa)+3H_2O$. It occurs as a white, odorless, tasteless crystalline powder readily soluble in water. It is claimed to be less poisonous than the ordinary arsenical compounds. Yet untoward symptoms such as blindness have been observed after six injections of 0.5 gram (7½ grains) each. Used in skin diseases, cachexias such as accompany carcinoma, etc. It is generally administered subcutaneously, 1 to 3 grains per day; it is said not to impart a garlicky odor to the breath, perspiration, and dejections, as the cacodylates do.—Mfrs.: Vereingte Chem. Werke, Charlottenburg, Germ.; agts.: Victor Koechl & Co., New York.

ATOXYL-MERCURY. See *mercury atoxylate*.

ATROPINE METHYLBROMIDE, or *methyl-atropine bromide*, $C_{18}H_{20}NO_3Br$, has been introduced by Dr. L. Vaupel as a mydriatic, antihydrotic, and antisialogogue, similar to atropine but more speedy and evanescent in action than the latter. It crystallizes in white leaflets containing 21 per cent. of bromine, and readily soluble in water and diluted alcohol. It is applied in 1 per cent. solution. Dose, 1/60 to 1/30 grain.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ATROPINE METHYLNITRATE is better known by the trade name *eumydrin*. See this title.

ATROSCINE is an optically inactive scopolamine, and forms colorless crystals insoluble in water but soluble in alcohol, ether or chloroform. It has been prescribed as a mydriatic in 1 per cent. solution in castor or peanut oil, and internally as a sedative.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ATROSOGEN is a digestive powder said to consist of bismuth subnitrate 5 parts, calcium carbonate 12 parts, magnesium carbonate 3 parts, sodium chloride 10 parts, sodium sulphate 3 parts, sodium bicarbonate 65 parts, pepsin 3 parts, and powdered rhubarb 2 parts.—Mfr.: W. F. Weiss, Munich, Germ.

AURAMINE is a name applied to *pyoktanin yellow*, an anilin dye used as an antiseptic in certain eye diseases. (See pyoktanin.)

AUROCHININ *(auroquinine)* is a new tasteless quinine, the quinine ester of para-amidobenzoic acid or quinine *para-amidobenzoate*. It occurs as a yellowish, crystalline *powder, difficultly* soluble in cold water, and soluble in

about 10 parts of boiling water without decomposition. Dose, a little larger than that of quinine sulphate.

AVANTOL is a liquid disinfectant and deodorant qualitatively similar to the older article sanatol, and representing a solution of cresolsulphuric acid.—Mfr.: Wm. Friedrich, Hanover, Germ.

AVENINE, formerly defined as an alkaloid but latterly more correctly described as a resinoid, is an extract of avena sativa claimed to contain the alkaloidal principles present in oats. It occurs as brown, friable masses of aromatic odor, and soluble in alcohol. It is used as a nerve stimulant in doses of 1/120 to 1/60 grain several times daily, given in pills.—(Nonproprietary.)

AZODERMIN is defined as *acetylamidoazotoluene*, obtained by acetylating one of the amide groups in amidoazotoluene. It forms a brick-red powder, which is difficultly soluble in water, more readily soluble in alcohol, and freely so in chloroform; soluble also in hot petrolatum, oils, and fats. It is used in 8-per-cent. ointments (so marketed) on chronic ulcers, neoplasms, etc., like scarlet red.—Mfrs.: Aktiengesellschaft für Anilinfabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

AZODOLEN is a mixture of equal parts of pellidol and iodolen, occurring as a pale-yellow, nonstaining powder, and is used as a vulnerary in ulcerous lesions.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

B

BACTERINS *(bacterial vaccines)* consist of suspensions of killed pathogenic bacteria in normal saline solution, standardized by determining the number of bacteria per c.c. of suspension. They are used in accordance with the principles of Sir A. E. Wright, of London, England. Wright's principles of vaccine therapy are founded on the theory of active immunization; his demonstrations show that certain substances in the blood and other fluids of the animal body act upon bacteria and modify them in such a way that they are taken up and digested by the phagocytes. These substances Wright terms "opsonins," a word derived from the Greek, meaning "to prepare for food." These opsonins may be greatly increased in amount by the injection of killed bacteria. Wright terms standardized and sterilized suspensions of bacteria "vaccines." As the term "vaccine" more properly refers to virus derived from bovines, the term "bacterins" has been proposed. By the use of bacterins, or bacterial vaccines, the opsonins and other antibodies in the blood may be increased, and, other things being equal, this increase *is characterized clinically* by improvement in the patient's *condition. When* a bacterin is injected into the tissues

of a patient suffering from an infection of the corresponding live germ, the formation of the special opsonin having the power of preparing that germ for phagocytosis is stimulated. The blood and lymph thus enriched, circulating through the focus of infection, prepare the invading germ for destruction by the phagocytes. Bacterial therapy is therefore dependent upon the injection of an appropriate bacterin and the flushing of the focus of invasion by the enriched blood and lymph. The latter is favored by local application of hot salt solution, rubefacients, the use of the Bier method, surgical incision, massage, and the internal use of drugs such as citric acid, sodium nitrate, etc., which decrease the coagulability of the blood. Bacterial vaccines are prepared either from germs cultivated in the laboratory or directly from germs isolated from the patient. In the first case they are known as stock vaccines; in the latter, as autogenous vaccines. Stock vaccines have been found equal to and sometimes superior to autogenous vaccines in the treatment of infections due to staphylococci, gonococci, and the tubercle bacillus. They are also useful in the treatment of many infections caused by the colon bacillus, streptococcus, and the pneumococcus. Thus we have acne-bacterin, coli-bacterin, Neisser-bacterin, neoformans-bacterin, pneumo-bacterin, etc., etc.—Mfr.: H. K. Mulford Co., Philadelphia, Pa.

BARIUM CHLORIDE was recommended a few years ago as a reliable purgative, given intravenously, in the colic of horses—6 to 20 grains dissolved in 2½ drams of water. Very recently Dr. Schedel pointed out its usefulness in human medicine as a cardiac tonic similar in its indications to digitalis. He gives ½ to ¾ grain twice daily, with a little milk sugar, two hours after the principal meals. The maximum dose is 3 grains.—(Nonproprietary.)

BARMENIT is a name given to *sodium chloroborate*.

BARUTIN is the name applied to the double salt *barium*-cent. of theobromine. According to Dr. E. Bibergeil, it is *theobromine and sodium salicylate* occurring as a white, faintly alkaline, water-soluble powder containing 25 per an efficient diuretic. Dose, 3 to 8 grains, in sweetened solution; acid syrups should be avoided. As the product is very susceptible to the influence of carbon dioxide, which decomposes it, it should be kept well stoppered.—Mfr.: Actengesellschaft für Anilinfabrikation, Berlin O, Germ.; agts.: Lehn & Fink, New York.

BATES' SALT.—See *Sal de Bates*.

BAUME ANALGESIQUE BENGUE is said to consist of 5 parts each of menthol and methyl salicylate and 6 parts of wool-fat.—Agts.: Thomas Leeming & Co., New York.

BEBEERINE must not be confounded with *berberine*. The former is an alkaloid from nectandra or pareira brava of the formula $C_{18}H_{21}NO_3$, and is given in doses of 1/12 to 1¼ grains, according to the indications. Berberine is the colored alkaloid of berberis vulgaris, hydrastis and some

other plants, of the formula $C_{20}H_{17}NO_4$, and is administered in doses of 1 to 15 grains.—(Nonproprietary.)

BENETOL, defined as *naphthol glycerite*, is a liquid antiseptic and germicide, consisting, according to analyses made in the chemical laboratories of the American Medical Association, of about 18 grams of alphanaphthol in 100 c.c. of a solvent consisting of water, glycerin and soap. —Mfrs.: Northern Chem. Association, Minneapolis, Minn.

BENZACETIN *(acetamidoethylsalicylic acid)*, $C_6H_3(OC_2H_3)(NH.COCH_3)COOH$, occurs as colorless needles sparingly soluble in water, but more readily soluble in alcohol. It is employed as an analgesic and antineuralgic. Dose, 7½ to 15 grains.—(Nonproprietary.)

BENZAMIDE-ANTIPYRIN. See *plejapyrine*.

BENZAMIDO-SEMICARBAZIDE is the chemical designation for the article marketed as *cryogenin*, which see.

BENZANALGEN is synonymous with *quinalgen*.

BENZANILID *(benzoyl-anilin* or *phenyl-benzamide)* occurs in white to reddish crystals, readily soluble in alcohol but nearly insoluble in water. It is used as a mild antipyretic, especially in the infectious diseases of children, in doses of 1½ to 6 grains; adults receive 10 to 15 grains per dose.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

BENZCAIN is a name given to *guaiacol benzyl ester*, a substance employed as a local anesthetic, particularly by cataphoresis.

BENZENE or *benzol* is used to a limited extent as an antispasmodic and anticatarrhal in whooping cough, influenza, etc., in doses of 2 to 10 minims every three hours, taken in emulsion, in capsules, or on sugar. Maximum dose, 45 minims.—(Official.)

BENZO-EUGENOL *(benzoyl-eugenol* or *eugenol benzoate)* results from the action of benzoyl chloride upon eugenol-sodium, and occurs in white, odorless crystals which are soluble in alcohol and ether but insoluble in water. It is prescribed in tuberculosis in place of benzosol, also in neuralgic headache. Dose, 7½ to 15 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

BENZOFORMOL COMPOUND is *Mulford's liquor antisepticus*, each fluid ounce of which contains glycerite boroglycerin 40 grains, sodium borate 12⅔ grains, sodium benzoate 1⅓ grains, sodium sulphocarbolate ⅔ grain, solution formaldehyde ½ minim, camphor ⅔ grain, eucalyptol ⅛ minim, menthol ¼ grain, and oil gaultheria 9/10 minim. —Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

BENZOIC ACID BENZYL ESTER is *peruscabin*.

BENZOIC ACID SULPHINID is *saccharin*.

BENZOMORPHINE is an English trade name for *benzylmorphine hydrochloride* or *peronin*.

BENZONAPHTOL *(naphtol benzoate)*, $C_6H_4.COO.C_{10}H_7$, is *obtained by melting* together equal parts of beta-naphtol *and benzoyl chloride*. It forms a whitish crystalline pow-

der, soluble in alcohol and chloroform, almost insoluble in water; it darkens with age. It is given as an intestinal antiseptic in diarrheal affections. Dose, 5 to 10 grains several times daily, up to 75 grains a day; children receive 10 to 30 grains in the course of a day.—(Nonproprietary.)

BENZOSALIN is the trade name applied to the *methyl ester of benzoylsalicylic acid.* It occurs in minute white needles, possessing a faint aromatic odor and scarcely any taste; readily soluble in alcohol, and practically insoluble in water; decomposed by alkalies; melting-point, 85° C. It is intended as an antirheumatic and intestinal antiseptic, analogous to salol. Dose, 7½ to 15 grains singly, 45 to 60 grains per day, in tablets, in which form alone the article is marketed.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

BENZOSOL is *guaiacol benzoate* or *benzoyl-guaiacol*, $C_6H_4.OCH_3.COO.C_6H_5$, a compound of guaiacol in which a hydrogen atom of its hydroxyl is replaced by benzoyl. It occurs as a white, crystalline powder of slight odor and taste; readily soluble in hot alcohol, ether or chloroform; insoluble in water; guaiacol content, about 54 per cent. It is incompatible with alkalies. It is employed chiefly as an intestinal antiseptic; also in diabetes, cystitis, etc. Dose, 4 to 8 grains, after meals.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

BENZOTHYMOL is a liquid antiseptic containing thymol, eucalyptol, menthol, baptisia, methyl salicylate, boric acid and benzoic acid; apparently analogous to the U. S. P. *Liquor Antisepticus.*—Mfrs.: Sharp & Dohme, Baltimore, Md.

BENZOTHYMOL MODIFIED is the same as the preceding but without benzoic acid, hence may be dispensed with tincture iron chloride.—Mfrs.: Sharp & Dohme, Baltimore, Md.

BENZOYLACETYL PEROXIDE is the chemical designation for *acetozone.*

BENZOYL-ANILIN is a synonym of *benzanilid.*

BENZOYL-ARBUTIN.—See *cellotropin.*

BENZOYL-ETHYL-DIMETHYLAMINOPROPANOL HYDROCHLORIDE.—See *stovaine.*

BENZOYL-EUGENOL.—See *benzo-eugenol.*

BENZOYL-GUAIACOL.—See *benzosol.*

BENZOYL-PARA-CRESOL *(para-cresol benzoate)* occurs as colorless crystals melting at about 70 to 71° C., soluble in hot alcohol and ether, and insoluble in water. It is used as an intestinal antiseptic. Dose, 4 to 8 grains.

BENZOYL PEROXIDE *(benzoyl superoxide)*, $C_6H_5.CO.O.O.CO.C_6H_5$, is prepared by treating commercial sodium peroxide (5 parts) with an equimolecular quantity of benzoyl chloride (9 parts) at about 4° C. The resulting precipitate is filtered off and recrystallized from hot alcohol. It occurs as permanent, non-deliquescent, white, odorless prisms melting at about 103° C., slightly soluble in water,

more readily soluble in alcohol, and dissolving in 35 to 50 parts of olive oil. According to Dr. Loewenhart, benzoyl peroxide is an indifferent substance when taken internally, but a mild anesthetic and powerful disinfectant when applied externally. It has been used as a wound antiseptic and dermic, pure or in 10-per cent. ointment, or as concentrated solution in olive oil.—Mfrs.: Hynson, Westcott & Co., Baltimore, Md.

BENZOYL-PSEUDOTROPEINE is the chemical designation of the article marketed as *tropacocaine*.

BENZOYL-SALICYLIC-ACID METHYL ESTER.—See *benzosalin*.

BENZOYLSODIUM-THYMOL OXYBENZOATE is known in the trade as *pyran* or *pyrenol*.

BENZOZONE is the old name for *acetozone*.

BENZYL-MORPHINE.—See *peronin*.

BERBERINE is the colored alkaloid contained in berberis vulgaris, hydrastis and other plants, of the formula $C_{20}H_{17}NO_4$. It is used only in the form of its salts, as a bitter tonic and antiperiodic. *Berberine hydrochloride*, $C_{20}H_{17}NO_4.HCl+2H_2O$, occurs as a yellow powder or fine crystals, soluble in about 300 parts of water and slightly soluble in alcohol. *Berberine phosphate*, $(C_{20}H_{15}NO_4)_2.(H_3PO_4)_2+5H_2O$, occurs as a yellow crystalline powder rather freely soluble in water; *berberine sulphate* (crystalline), $C_{20}H_{18}NO_4.HSO_4$, forms yellow needles soluble in water and in alcohol. Dose of the various salts, as a stomachic tonic ½ to 1 grain; as an antiperiodic 7½ to 15 grains.—(Nonproprietary.)

BETA-EUCAINE.—See *eucaine*.

BETA-IMIDOAZOLYLETHYLAMINE.—See under *imido*.

BETA-LYSOL is a trade name for *liquor cresoli saponatus* of the German Pharmacopœia.—Schülke & Mayr, Hamburg, Germ.; agts.: Lehn & Fink, New York.

BETA-NAPHTOL BENZOATE is described under *benzonaphtol*.

BETA-NAPHTOL-BISMUTH is better known as *orphol*.

BETA-NAPHTOL SALICYLATE is *betol*.

BETAINE HYDROCHLORIDE.—See *acidol*.

BETATRINAPHTHYL PHOSPHATE.—See *enteroseptyl*.

BETOL, also known as *naphtalol, naphtol-salol, salinaphtol, salicylic acid beta-naphtol ester, beta-naphtol salicylate*, $C_6H_4.OH.COO.C_{10}H_7$, is obtained by heating beta-naphtol-sodium and sodium salicylate with phosphorus oxychloride, and occurs as a white, glistening powder, soluble in hot alcohol, insoluble in water. It is used in intestinal disorders, gonorrheal cystitis, articular rheumatism, etc. Dose, 4 to 10 grains three or four times daily, given in wafers or with milk.—(Nonproprietary.)

BETULOL is a liniment containing oil of betula as its chief ingredient and employed externally in rheumatism and gout.—*Mfrs.:* Anglo-Amer. Pharm. Co., New York; *agts.: E. Fougera*, New York.

BIGALL is a German trade name for *bismuth subgallate.*

BILATIN is a nutritive consisting of fat-free dried milk and ovolecithin.

BILEIN is the name given to a mixture of the essential salts of bile, sodium glycocholate and taurocholate, offered as a cholagogue and laxative, and marketed as tablets. Used in place of ox-gall.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

BILISAN, advertised as a remedy for the treatment of gall-stones, is said to be a tincture of rhubarb.

BIODAL is defined as *mono-iodo-dibismuth-methylene dicresotinate.* It is used as a dusting-powder on wounds. —Mfrs.: A. C. Barnes Chem. Co., Philadelphia, Pa.

BIODILIN is a fine, brownish-red, almost tasteless powder, having a slight odor like that of peach kernels, practically insoluble in water, ether or alcohol, decomposed slowly by dilute alkalies (resulting in the liberation of iodine and quinoline), and containing 53 per cent. of iodine, 30 per cent. of bismuth, and 17 per cent. of quinoline. It is used externally as a substitute for iodoform, and internally as an intestinal disinfectant and astringent. Dose, 2 to 6 grains.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

BIOFERRIN is a liquid hemoglobin-albumin preparation which is administered as a blood-builder to children in doses of 1 to 4 fluid drams per day, and to adults in daily quantities of ½ to 1 oz.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

BIOGEN *(hopogan)* is said to be magnesium peroxide (MgO_4) and described as an odorless, tasteless, permanent, insoluble white powder, which is used "whenever the system vitality is reduced from any cause, when there is temporary or protracted failure on the part of the organs to perform their functions, and when it is required to increase nutrition," etc. Dose, 5 to 15 grains every three or four hours. Marketed also as 5-grain tablets.—Owners: Medicinal Dioxide Co., New York.

BIOGUAIACOL. See *guaiacol phosphate.*

BIOLACTYL is a culture of the lactic acid bacillus, furnished in liquid form and as tablets.

BIOPLASM is a so-called "tissue food" containing "nuclein, lecithin, diastase, trypsin, fibrinogen, and other organic ferments." It is a light-gray powder of sweet taste and soluble in aqueous fluids. It is usually given in 5 to 15 grain doses several times a day, and allowed to dissolve in the mouth, and the patient is enjoined to drink water freely during the day. The article must be kept securely stoppered; moisture and light decompose it. It is marketed also as 5-grain tablets.—Mfrs.: Bioplasm Mfg. Co., New York.

BIOSON is described as an albumin-iron-lecithin compound, made from casein and containing 0.24 per cent. of iron and 1.2 per cent. of lecithin. It occurs a brownish-

gray powder, not unpleasant in taste and almost completely soluble in water. Dr. M. Heim recommends it as a nutritive. Dose, 1 to 3 ozs. per day, in milk, beef-tea, etc.—Mfr.: Biosonwerke, Bensheim, Germ.

BIS-FORMA-SAL is a name constructed from *bis*muth, *form*aldehyde, and *sal*icylic acid, from which the product is made. Chemically, the article is defined as *bismuth methylene disalicylate*, and forms a white, odorless, insoluble powder. It is used as an intestinal antiseptic and astringent; also as a vulnerary. Dose, 10 to 20 grains. See caution under *formaldehyde*.—Mfr.: Organic Chem. Mfg. Co., Fort Washington, Pa.

BISMACOL is a liquid preparation used as a gastro-intestinal astringent and antiseptic, each fluid ounce of which is said to contain hydrated bismuth oxide 12 grains, magnesium salicylate from natural acid 1 grain, geranium maculatum 32 grains, pancreatin 4 grains, potassium guaiacol-sulphonate 4 grains, calcium phenolsulphonate 1 grain, chloroform 2 minims, and mucilage of elm 10 grains. Dose, a teaspoonful to a tablespoonful.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, Ohio.

BISMAL is chemically *bismuth methylenedigallate*, $4C_{15}H_{12}O_{10}+3Bi(OH)_3$, and occurs as a grayish-brown, voluminous powder insoluble in the ordinary solvents, and employed as an intestinal astringent, chiefly in chronic diarrheas. Dose, 2 to 5 grains three to six times a day. See caution under *formaldehyde*.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

BISMON is *colloidal bismuth-oxide*, "a peculiar compound of lysalbin- and protalbin-sodium and bismuth metahydroxide." It occurs as a reddish powder, freely soluble in water. It contains 20 per cent. of bismuth, equivalent to 22.3 per cent. of bismuth oxide. According to Dr. Kinner, it is a good gastro-intestinal tonic and antidiarrheal; he gives children 4 to 8 grains three to six times daily.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

BISMUTAL or *bismutol* is described as a mixture of soluble bismuth phosphate and sodium salicylate, which serves as a wound-antiseptic as well as antidiarrheal.—Mfr.: Apotheker Radlauer, Berlin, Germ.

BISMUTAN is an antidiarrheal remedy consisting of bismuth, resorcin and tannin, and occurring as a yellow, odorless, slightly sweet powder, which is insoluble in water. Dose for adults, 8 to 15 grains, taken as powders or in shake mixtures.—Mfr.: Apotheker Mindes, Zurich, Switzerland.

BISMUTH BETA-NAPHTOLATE is better known on this market as *orphol* and will be referred to under that heading.

BISMUTH BITANNATE.—See *tannismuth*.

BISMUTH BOROPHENATE.—See *markasol*.

BISMUTH CHRYSOPHANATE.—See *dermol*.

BISMUTH CINNAMATE is better known by the trade name *hetoform*, which see.

BISMUTH COLLOIDAL.—See *bismon*.

BISMUTH DIBROMO-BETA-OXYNAPHTOLATE.—See *helkomen*.

BISMUTH DILACTOTANNATE is the chemical designation for *lactannin*, which see.

BISMUTH DISALICYLATE is obtained by the decomposition of a solution of a normal bismuth salt with a normal salicylate, the base of which forms soluble salts with the acid of the bismuth salt, without causing any elevation of temperature, which latter would provoke decomposition of the newly formed disalicylate. The salicylic acid liberated is removed with an indifferent solvent or neutralized and dissolved out. Bismuth disalicylate occurs as a fine, white, tasteless powder having a faint sweetish after-taste. Its aqueous suspension gives a violet color reaction with ferric chloride. It contains 48 to 50 per cent. of bismuth oxide and 50 to 52 per cent. of salicylic acid. It is employed as an intestinal astringent and antizymotic. Average dose, 12 grains, one to four times daily.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

BISMUTH DITANNATE.—See *tannismuth*.

BISMUTH DITHIOSALICYLATE is a synonym of *thioform*.

BISMUTH FORMIC IODIDE, according to the description given by the manufacturers, appears to be a mixture of glutol (formaldehyde-gelatin), aristol, and bismuth oxyiodide. It is employed as a surgical antiseptic and siccative on wounds, ulcers, burns, skin diseases, etc.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

BISMUTH FORMIC IODIDE COMPOUND is said to contain in each ounce acetanilide 58 grains, zinc sulphocarbolate 10 grains, bismuth subgallate 20 grains, "bismuth formic iodide" 70 grains, alum 3 grains, boric acid 100 grains, thymol, menthol, eucalyptol, and inert base q. s. Its uses are the same as the preceding article.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

BISMUTH IODOSALICYLATE.—See *iodylin*.

BISMUTH METHYLENEDIGALLATE is described under *bismal*.

BISMUTH METHYLENEDISALICYLATE is the chemical name of *bisformasal*.

BISMUTH-NAPHTALIN BENZOATE will be referred to under *intestin*.

BISMUTH NOSOPHENATE.—See *eudoxine*.

BISMUTH OXIDE, COLLOIDAL, is marketed as *bismon*, which see.

BISMUTH OXYIODOGALLATE is the chemical designation for *airol*, under which heading it is described.

BISMUTH OXYIODOMETHYLENEDIGALLATE is *iodomuth*, which see.

BISMUTH OXYIODOMETHYLGALLATE is described under *iodogallicin*.

BISMUTH OXYIODOTANNATE is the chemical synonym of *ibit*, which see.

BISMUTH PHENOLSULPHONATE.—See *bismuth sulphocarbolate*.

BISMUTH PHOSPHATE SOLUBLE *(bisol)* is a water-soluble bismuth compound containing besides some sodium phosphate, 20 per cent. of bismuth oxide. It forms a white, odorless powder of faintly alkaline taste, and is prescribed as a gastro-intestinal astringent in doses of from 3 to 8 grains several times daily.—(Nonproprietary.)

BISMUTH PROTEINATE is a synonym of *bismutose*, which see.

BISMUTH PYROGALLATE, $[C_6H_2(OH)_2O]_2BiOH$, also known as *helcosol* and *pyrogallol-bismuth*, occurs as a yellow or greenish-yellow, odorless and tasteless powder, soluble in acids but insoluble in the usual solvents; it contains 60 per cent. of Bi_2O_3. It is employed internally as an intestinal disinfectant and astringent, and externally in certain skin diseases similarly to bismuth subgallate. Dose, 5 to 15 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

BISMUTH RESORCINATE, or *resorcin-bismuth*, is a compound of somewhat variable composition but containing about 40 per cent. of Bi_2O_3; a yellowish-brown powder insoluble in water. It is used in gastric catarrh, abnormal gastric fermentation, and the like. Dose, 2 to 8 grains several times daily.

BISMUTH SUBGALLATE, also known as *dermatol* and *basic bismuth gallate*, is now official in the U. S. P.

BISMUTH SULPHOCARBOLATE, or *bismuth sulphophenate* or *phenolsulphonate*, occurs as a pale-reddish powder, partially soluble in water. It has been recommended by Dr. Hugh Woods in fever patients with fetid breath and coated tongue, and in fermentative dyspepsia and typhoid fever. Dose, 3 to 8 grains three or four times a day.—(Nonproprietary.)

BISMUTH TETRABROMPYROCATECHINATE.—See *noviform*.

BISMUTH TRIBROMPHENOLATE.—See *xeroform*.

BISMUTHAL is a milky liquid said to contain in each 100 c.c. "lac bismuthi citratis" (containing 7.6 per cent. of anhydrous bismuth citrate) 44 c.c., pepsin 3.5 grams, glycerin 40 grams, and small quantities of lactic acid, ginger and cherry-laurel water, and 5 per cent. of alcohol. It is used as an intestinal astringent and stomachic. This article must not be confounded with *bismutal*, or *bismutol*.—Mfrs.: National Pharmacy Co., Oakland, Cal.

BISMUTH AND IRON CITRATE SOLUBLE occurs as *yellowish-green* scales of a saline, mildly ferruginous taste, *containing about 20* per cent. of bismuth and 9 per cent. of *iron, and readily* soluble in water. It is prescribed as a

gastric sedative and hematinic. Dose, 5 to 10 grains.—Mfrs.: Burroughs, Wellcome & Co., London and New York.

BISMUTH AND LITHIUM CITRATE SOLUBLE contains between 40 and 45 per cent. of bismuth and from 2.5 to 3 per cent. of lithium. It occurs in colorless scales that are readily soluble in water, and is employed mainly in gouty dyspepsia. Dose, 2 to 5 grains.—Mfrs.: Burroughs, Wellcome & Co., London and New York.

BISMUTOSE *(bismuth proteinate)* is a bismuth-albumin compound that occurs as a yellowish-white, fine, odorless and tasteless powder containing 22 per cent. of bismuth, insoluble in water or alcohol but soluble in solutions of the alkalies. It is used principally as an intestinal astringent and a protective to the mucosa of the gastro-intestinal canal, chiefly in children; to a limited extent externally in intertrigo and burns. Dose, for children under 6 months of age, 15 to 30 grains hourly; older children take a teaspoonful at a dose. On exposure to light, bismutose gradually assumes a slate-gray color; it should hence be kept protected from light.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Lehn & Fink, New York.

BISOL is a brand name for *bismuth phosphate soluble.*—Agts.: C. Bischoff & Co., Inc., New York.

BLANDINE COMPOUND is *Mulford's petrolatum liquidatum compositum.* Each fluid ounce contains 1½ grains of camphor, 1/5 grain of menthol, 1/5 grain of thymol, ⅜ grain of eucalyptol, 1½ minims of gaultheria oil, and 1/40 grain of hydrastine, in liquid petrolatum. It is exploited as a rhinopharyngeal antiseptic spray.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

BLENAL is the *carbonic ester of santalol* of the formula $(C_{15}H_2O)_2CO$, and occurs as a brownish, oily, odorless and nearly tasteless liquid, soluble in alcohol or ether but insoluble in water. It contains about 94 per cent. of santalol, and is employed in place of oil of sandalwood as an anticatarrhal in gonorrhea, cystitis, etc. It is slowly decomposed by the alkaline intestinal secretion into carbonic acid and santalol. It is apparently analogous to *santyl.* Marketed in 5-minim capsules. Dose, 1 to 3 capsules three times daily.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

BLENNORSAN is a new name applied to the product formerly known as *gonoryl,* the active constituent of which is said to be 33 per cent. of fluid extract of ranjan (ixora coccina). It is offered as an antigonorrheic, and is marketed in tablet form.—Mfr.: Chem. Fabrik Erfurt, Erfurt-Ilversgehofen, Germ.

BLENNOSTASINE is the trade name applied to *cinchonidine dihydrobromide,* $C_{19}H_{22}N_2O(HBr_2)$. The article occurs as light-yellow, odorless, deliquescent, and very bitter prisms that are readily soluble in water, less so in *alcohol, and insoluble* in ether or chloroform. It is em*ployed chiefly in* acute coryza, "colds" in the head, and

hoarseness from catarrhal hypersecretion, in which affections it has a drying-up effect like belladonna. Dose, 1 to 5 grains, according to the effect desired. It is also marketed as 1, 3, and 5-grain pills.—Mfrs.: McKesson & Robbins, New York.

BLENOTIN is the name given to capsules containing 0.16 gram of oil sandalwool, 0.02 gram of myrrh, 0.02 gram of camphor, 0.12 gram of hexamethylenamine, 0.11 gram of boric acid, and 0.02 gram of mushroom extract. The capsules are used in gonorrhea.—Mfrs.: Krewel & Co., Cologne, Germ.; agts.: Lehn & Fink, New York.

BLUTAN is an alcohol-free, carbonated solution of acid-albumin, iron and manganese peptonate, containing 0.6 per cent. of iron and 0.1 per cent. of manganese. It is used as a hematopoietic. Marketed also as *cinchona-blutan*, containing the equivalent in cinchona alkaloids of 1 per cent. of cinchona bark; *diabetic blutan*, the same as blutan but without sugar; *iodoblutan*, carrying 0.1 per cent. of iodine; and as *bromoblutan*, carrying 0.1 per cent. of bromine. Dose, a teaspoonful to a tablespoonful.—Mfr.: Chem. Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

BOCARAL is an antiseptic dusting-powder containing boric acid, alum, carbolic acid, eucalyptol, methyl salicylate, menthol, and thymol.—Mfrs.: Sharp & Dohme, Baltimore, Md.

BONE MARROW, RED, consists of more than 90 per cent. of fat. In new-born animals one-third or more of this fat is lecithin, and the marrow contains about 1 per cent. of iron. Both lecithin and iron decrease rapidly during the first few weeks after birth. The commercial preparations contain variable amounts of these constituents. Red bone-marrow is supposed to stimulate the formation of red blood-corpuscles, and has been recommended in simple and pernicious anemias.

BORACETANILID, as its name applies, is an intimate mixture of boric acid (75) and acetanilid (25). It is used as a wound antiseptic in the pure form.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

BORNEOL BROMVALERATE.—See *brovalol*.

BORNEOL DIBROMDIHYDROCINNAMATE.—See *adamon*.

BORNEOL ISOVALERATE *(bornyl valerate)*, also known as *bornyval*, is the isovaleric acid ester of borneol. It is a clear liquid of aromatic odor, and is used as a nerve sedative and aneleptic. Dose, 4 minims, in capsules.—(Nonproprietary.)

BORNYVAL is a trade name for *borneol isovalerate*.—Mfrs.: Riedel & Co., Berlin and New York.

BOROCALENDULA is "an intimate, thoroughly triturated combination of boric acid, acetanilide, and the valuable astringent and healing constituents of hydrastis and calendula." It is used as a vulnerary, and as an astrin-

gent injection (1 to 2 per cent. solution).—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, Ohio.

BORO-CHLORETONE is a combination of 2 parts of boric acid and 1 part of chloretone, intended for use as a dusting-powder on painful wounds.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

BOROFORM is a condensation product of sodium glycero-borate and formaldehyde, a clear liquid of specific gravity 1.150, having an odor recalling that of the aldehyde. It is used in substance and as 10-per-cent. ointment on wounds, like iodoform.—Mfr.: Phil. Röder, Vienna, Aust.

BORO-FORMALIN is a liquid antiseptic analogous somewhat to the official liquor antisepticus, and containing boric, benzoic and salicylic acids, together with resorcin, menthol, thymol, eucalyptol and formaldehyde.—Mfrs.: Eimer & Amend, New York.

BOROL is a name that has been applied to an antiseptic solution each fluid ounce of which is said to represent sodium borate 12 grains, sodium bicarbonate 12 grains, sodium benzoate 5 grains, glycerin 90 minims, eucalyptol ¼ minim, thymol 5/16 grain, menthol ⅛ grain, and oil of pinus pumilio "q. s." It is applied to wounds, etc., in full strength; it is used as a gargle or irrigation diluted with 5 to 10 volumes of water.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

BOROLYPTOL is a liquid antiseptic for internal and external use, "containing 0.2 per cent. of formaldehyde, 5 per cent. of aceto-boroglyceride, and the active balsamic constituents of eucalyptus, myrrh, pinus pumilio, storax, and benzoin."—Mfrs.: Palisade Mfg. Co., Yonkers, N. Y.

BOROPHLOGINE consists, according to the manufacturers, of "potassium iodide, glycerin, thymol, eucalyptol, and menthol, combined with a specially prepared and purified base composed of silica, magnesia, and alumina." It is a smooth, plastic surgical dressing, intended as a substitute for the ordinary poultice in the topical treatment of congestions and inflammations.—Mfrs.: H. K. Wampole & Co., Philadelphia, Pa.

BOROVERTIN *(hexamethylenetetramine triborate)* occurs as a white, slightly acid, water-soluble, bitter powder containing 51.5 per cent. of hexamethylenetetramine and 48.5 per cent. of anhydrous boric acid, and soluble in about 11 parts of water and 500 parts of alcohol. It is supposed to combine the properties of its two components, and hence is used as a urinary antiseptic and disinfectant. Dose, 5 to 10 grains several times daily. It should be noted that the use even externally of formaldehyde preparations or of compounds that may produce it involves a possibility of bad effect on eyesight, it having been suggested that the poisonous and sight-destroying effect of wood alcohol is due to its decomposition into formic acid in the system, which acid may be produced from formaldehyde, it being an intermediate product in the change of

wood alcohol to formic acid. The acid may also be liberated from formates.—Mfr.: Actiengesellschaft für Anilinfabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

BORSALYL is said to be a mixture of 25 parts of boric acid and 32 parts of sodium salicylate; an antiseptic.

BORSYL is a powder used in excessive perspiration. It is reported to consist of 1 part of borax, 0.5 part of spermaceti, 28 parts of boric acid, 69.5 parts of talcum and 1 part of acetyl alcohol.—Mfr.: Chem. Fabrik. "Borsyl," Dahme, Germany.

BOVININE is described as a sterile mixture prepared from defibrinated arterial blood of steers, by a cold process. It contains oxyhemaglobin, proteins, albumins, organic iron and sodium chloride, with alcohol and glycerin. It is used as a general nutritive tonic.—Mfrs.: Bovinine Co., New York.

BOVOVACCINE is Prof. von Behring's antitubercular substance used for the prevention of tuberculosis in cattle. —Mfrs.: Behringwerk, Marburg, Germany; agts.: C. Bischoff & Co., Inc., New York.

BRAUSAN are compressed briquets for use in preparing carbonic-acid and boric-acid (or, rather, borax) baths at one and the same time. These bath bricks are also supplied with a sulphur or iron base.—Mfrs.: Chem. Fabrik. "Helfenberg," Helfenberg, Germany; agts.: Reinschild Chem. Co., New York.

BRENZCAIN is the terse name applied to *guaiacol benzylic ether* or *pyro (brenz) catechin methylbenzyl ether.* It occurs in white crystals, soluble in alcohol, ether or vasogen; insoluble in water. It is said to possess the advantages of guaiacol without its irritant action. It is used, however, chiefly in the production of local anesthesia by cataphoresis.—Mfr.: E. Merck, Darmstadt, Germ., agts.: Merck & Co., New York.

BRENZ (PYRO) CATECHIN DIMETHYL ETHER.—See *veratrole.*

BRENZ (PYRO) CATECHIN ETHYL ETHER is a synonym of *guaethol,* and will be referred to under that title.

BRENZ (PYRO) CATECHIN METHYL-BENZYL ETHER is described under *brenzcain.*

BROMACETANILID is described under *antisepsin.*

BROMALBIN is a pulverulent organic compound of albumen and bromine containing about 18 per cent. of the latter; slowly soluble in alkaline liquids, insoluble in water and acid media. It is used as a succedaneum for the alkali bromides. Dose, 5 to 15 grains.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

BROMALIN, or *bromethylformin,* or *hexamethylenetetramine bromethylate,* $(CH_2)_6N_4.C_2H_5Br$, results from the action of ethyl bromide upon hexamethylenetetramine. It occurs as white crystals, soluble in water. It is used as a substitute for the alkali bromides in doses of 30 to 60 grains several times daily. See caution under formalde-

hyde.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

BROMANILID is referred to under the synonym *antisepsin.*

BROMDIETHYLACETAMIDE.—See *neuronal.*

BROM-EIGON is described under the collective title *eigons.*

BROMEINE is a French designation for *codeine hydrobromide.*

BROMELIN is a digestive enzyme obtained from the pineapple (bromelia ananas), stated to be similar in action to pepsin and papain.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

BROMETHYLFORMIN is a synonym of *bromalin.*

BROMETONE is the terse name applied to *tribromtertiary-butyl alcohol*, $CBr_3.2CH_3COH$, resulting from the action of caustic alkali upon a mixture of bromoform and acetone. It occurs as fine, white crystals of camphoraceous odor and taste, readily soluble in alcohol, ether or chloroform, and but slightly soluble in water. It is used as a nerve-sedative and antispasmodic. Dose, 5 to 10 grains, in capsules or syrup.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

BROMIDIA has been described as a mixture containing in each fluid dram 15 grains each of potassium bromide and chloral hydrate, 1 grain each of extract hyoscyamus and extract cannabis indica, 5/16 drop of anise oil, with water and syrup and a small quantity of acacia. It is used as a nerve sedative and hypnotic. Dose, 1 fluid dram, in water.—Mfrs.: Battle & Co., St. Louis, Mo.

BROMINOL is a brominized sesame oil, like *bromipin*, introduced by Wm. Martindale of London.

BROMIPIN is a bromine addition product of sesame oil, in which the unsaturated fatty acids or their glycerin esters are partially transformed into saturated bromine-substituted fatty acids or their glycerides. It occurs as a yellow, oily liquid in the main similar in physical properties to sesame oil, and is recommended as an efficient substitute for the alkali bromides in epilepsy, cardiac palpitation, etc., whenever the latter drugs give rise to disturbances. It contains 10 per cent. of bromine. Dose, 1 to 4 drams, three or four times daily. It is generally prescribed in capsules. Bromipin gets turbid when exposed to a low temperature, and should hence be kept in a moderately warm place in winter.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

BROMIPIN 33⅓% is brominized sesame oil containing 33⅓ per cent. of bromine. Dose, 20 to 60 grains. Marketed also as *capsules* holding 30 grains and as *tablets* containing about 20 grains.—Mfrs.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

BROMLECITHIN is a compound of bromine and lecithin containing about 30 per cent. of Br. occurring as brown,

waxy masses, and claiming to be more assimilable than lecithin pure besides having sedative action. It is used in nervous diseases. Dose, 1 to 3 grains three times a day, in pills.—Mfrs.: Actiengesellschaft für Anilinfabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

BROMO-ALBUMIN is described under its more common designation, *bromosin*.

BROMOCHLORAL is a liquid hypnotic and sedative, each fluid dram of which is said to contain chloral hydrate 15 grains, potassium bromide 15 grains, extract cannabis indica ⅛ grain, and extract hyoscyamus ⅛ grain. Dose, a teaspoonful.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

BROMOCOLL is a bromine-tannin-gelatin compound containing 20 per cent. of bromine organically combined. It forms a yellowish, odorless, tasteless powder; insoluble in the usual solvents, but soluble in alkaline fluids. It is another of the modern succedanea for the alkali bromides being used in epilepsy and other nervous affections; it is also used externally as an antipruritic in various skin diseases, and is hence marketed also as a 20 per cent. ointment (with resorcin as the base), 10 per cent. solution (effected with the aid of borax 6, to 10 of bromocoll), dusting-powder, suppositories and soap. Bromocoll *soluble* contains borax as the solvent adjunct.—Mfr.: Actiengesellschaft für Anilinfabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

BROMOFORM *(formyl* or *methenyl tribromide; tribrommethane)*, $CHBr_3$, is now official.

BROMOGLIDINE is a compound of bromine and glidine (wheat protein), insoluble in water or alcohol, and marketed as tablets each containing ¾ grain of bromine. It is offered as a succedaneum for the alkali bromides. Dose, 1 to 3 tablets three times a day.—Mfr.: V. Klopfer, Dresden-Leubnitz, Germ.; agts.: Menley & James, New York.

BROMOHEMOL, or *hemol bromide*, is hemol with 2.7 per cent. of bromine; a brown, insoluble powder, introduced as an easily assimilable nerve tonic and sedative. Dose, 15 grains three times a day.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

BROMOL.—See *tribromphenol*.

BROMOLEIN is the name applied to a sterilized addition-product of the unsaturated fatty acids of almond oil. The article occurs as a yellow, odorless, oily liquid, containing 20 per cent. of bromine, and used subcutaneously where bromides are ordinarily employed. Dose, ½ to 2 fluid drams.

BROMOMANGAN *(liquor ferro-mangani bromopeptonati)* is ferromangan with the addition of 3 per cent. of bromopeptone (containing 11 per cent. of bromine). It presents a clear dark-brown liquid of agreeable odor and taste. It is *prescribed* as a nerve tonic and hematinic. Dose, a teaspoonful to a tablespoonful.—Mfrs.: Chem. Fabrik Helfen-

berg, near Dresden (Germany); agts.: Reinschild Chem. Co., New York.

BROMOTAN *(bromtannin-methylenurea)* is described as "a condensation product of formaldehyde, bromtannin and urea." It occurs as a fine, bulky, yellowish-brown, odorless powder which is insoluble in water, and is offered as an antiseptic and antipruritic dermic and vulnerary. It is used chiefly in 10 per cent. dusting-powder or ointment.—Mfr.: Dr. A. Voswinkel, Berlin W, Germ.

BROMOPEPTONE *(peptobromeigon)* is referred to under the *eigons.*

BROMOPHENOL, or *monobromphenol*, is referred to under the latter title.

BROM-PROTYLIN.—See under *protylin.*

BROM-SALIFEBRIN.—See *antinervin.*

BROMURAL is the trade name adopted for *monobromisovalerianyl-urea* a condensation product of isovalerianic acid and bromisovalerianyl bromide. It occurs as white, nearly tasteless needles, readily soluble in alcohol and alkali solutions, sparingly soluble in water and melting at about 145° C. It is offered as a nerve sedative and mild hypnotic. Dose, 3 to 10 grains, as tablets (so marketed).—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germany) and New York.

BROMVALIDOL is the name applied to tablets, each of which contains 1 gram of sodium bromide, 0.1 gram of calcined magnesia and 5 drops of validol. The combination is designed as a nerve sedative and soporific.—Mfrs.: Zimmer & Co., Frankfurt-on-M., Germany; agts.: C. Bischoff & Co., Inc., New York.

BROVALOL *(bornyl bromvalerate; borneol bromisovaleric acid ester)*, $CH_2.CH(CH_3).CHBr.COO(C_{10}H_{17})$, is obtained by esterification of borneol with bromisovaleric acid or its derivatives. It is known in Germany as *valisan.* It occurs as a colorless, oily liquid containing 25.2 per cent. of bromine, having a faint, aromatic odor, and soluble in alcohol, chloroform and ether, but insoluble in water. It is used as an analeptic, antispasmodic and nervine. Dose, 4 to 12 grains. Marketed only in 4-minim capsules (pearls).—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

BRYONIN is a glucoside of bryonia alba, first isolated by Walz. It forms an amorphous, brownish-yellow, bitter powder, soluble in water or alcohol. Formerly it was very generally considered physiologically inert, but more recently some investigators have ascribed laxative and alterative properties to it, and have used it in hepatic congestion, chronic inflammation of the serous membranes and convalescence after acute infectious diseases. Statements as to the dose vary considerably. Some say give 1-32 grain every two hours *until* some effect on the bowels is produced, *then 1-64 grain* every three or four hours thereafter; *others say* ⅙ *to* ⅛ grain.—(Nonproprietary.)

BUCCOSPERIN capsules are said to contain 4½ grains each of balsam copaiba and extract buchu, 1½ grains of hexamethylenamine and ¾ grain of salicylic acid. They are used as a urinary anticatarrhal and disinfectant.

BULGARA TABLETS are claimed to contain a practically pure culture of bacillus bulgaricus. They consist of the slowly dried culture mixed with milk sugar and starch, and each contains enough virile organisms to sour one pint of sterile milk within twenty hours. They are employed to check putrefactive processes in the alimentary canal. Dose, 1 or 2 tablets.—Mfrs.: Hynson, Westcott & Co., Baltimore, Md.

BULGARINE is the name applied to a culture of the lactic acid bacillus marketed both in liquid and tablet forms.

BUTIPYRINE or *butypyrinum* is identical with *trigemin*, a compound of pyramidon and butyl-chloral hydrate used mainly as an antineuralgic.—Mfrs.: G. R. Fritz-Petzold & Süss, Vienna, Austria.

BUTYLCHLORAL-HYDRATE-PYRAMIDON will be described under the trade name *trigemin*.

BUTYL-HYPNAL, or *butyl-chloral-antipyrin*, $C_{11}H_{12}N_2O.C_4H_9Cl_3.H_2O$, is a compound of butyl-chloral hydrate and antipyrin occurring as colorless, transparent needles that melt at 70° C. and are soluble in alcohol, ether, chloroform, or water (about 30 parts). It was introduced as a hypnotic and analgesic, but has not met with much favor. Dose, 10 to 30 grains.—(Nonproprietary.)

BUXINE is a synonym of *berbeerine*.

BYNIN is a thin malt extract made by Allen & Hanbury, London, Eng.; and *bynol* is a malt extract with cod liver oil made by the same firm.

C

CACODOL, also designated as "cacodylate of iron compound," is a liquid preparation, each fluid dram of which "contains the equivalent of one-twelfth grain of cacodylic acid and one-twentieth grain iodine." It is prescribed as an alterative.

CACODYLIACOL is a contraction of *guaiacol cacodylate*, which see.

CAD-FORMASAL is the cadmium salt of formasal, or *cadmium methylene-disalicylate*. It is used as an ointment (1 in 7 of lanolin) in the treatment of scrofulous glands, frostbite and chronic inflamed joints.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

CADMIUM SALICYLATE, $Cd(C_7H_5O_3)_2+H_2O$, occurs as white needles, of sweet, astringent taste, and soluble in water or alcohol. It is used as an astringent in eye diseases and gonorrhea.—(Nonproprietary.)

CADMIUM SULPHATE, $CdSO_4+aq.$, occurs as white, *transparent* crystals that are soluble in water and in alco-

hol. It is used as an antiseptic astringent like zinc sulphate.—(Nonproprietary.)

CADMIUM SULPHOCARBOLATE, *sulphophenate* or *phenolsulphonate*, $Cd(C_6H_5SO_4)_2+H_2O$, occurs as white crystals, soluble in water or alcohol. It was introduced a few years ago by Baldacini for use in certain eye diseases, but nothing has since appeared on it in medical literature. —(Nonproprietary.)

CADUSOL is a 20 per cent. solution of cade oil in vasogen.—Mfrs.: Société fédérales des Pharmaciens de France, Paris.

CAF-FORMASAL is defined by the manufacturers as "caffeine methylene-disalicylate of an alkali." It is probably caffeine and sodium methylenedisalicylate. It occurs as minute white crystals which are readily soluble in water, moderately so in alcohol. It is prescribed in chronic nephritis, rheumatism, gout, etc. Dose, 5 to 20 grains. See caution under *formaldehyde*.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

CALCIDIN is defined as "a new coupling of lime and iodine in definite proportions. The basis is calcium carbonate and calcium hydrate, together with a small amount of starch; this basis is impregnated with iodine in such proportion that practically 15 per cent. of it is available in each dose." It occurs as a bluish-black powder having the odor of iodine, and is used mainly in croup.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

CALCINOL is a fanciful name of *calcium iodate*, under which heading it will be described.

CALCIUM ACETYLSALICYLATE has the formula $(C_6H_4)_2(OCOCH_3)_2.COO)_2Ca+aq.$, and occurs as a white, odorless powder containing 12.93 per cent. of calcium oxide, 79.7 per cent. of acetylsalicylic acid and about 8 per cent. of water of crystallization. It is freely soluble in water, but its aqueous solutions readily spoil and hence should be made up only as wanted. It is used as an antineuralgic and antirheumatic like aspirin, and is given in similar doses. It is marketed under various trade names.

CALCIUM BORATE is a light, white powder, soluble in hot water. It is used internally chiefly in diarrhea of children and externally in weeping eczema, fetid perspiration, chafing, etc., in 10 to 20 per cent. ointments or dusting-powders. Dose, for children, 1 to 5 grains.—(Nonproprietary.)

CALCIUM CACODYLATE, or *calcium dimethyl-arsenate*, has the formula $[(CH_3)_2AsO_2]_2Ca+aq.$, and forms a white powder soluble in water. It is employed as an alterative similar to arsenous acid. Dose, ½ to 2 grains.—(Nonproprietary.)

CALCIUM CARBIDE, CaC_2, which, as is known, is used chiefly for generating acetylene gas, has been recommended by some in the treatment of inoperable cancer of the cervix and vagina. For this purpose a piece as large

as a pea to a nut is left in the vagina overnight. The usefulness of this treatment has been disputed by many. Calcium carbide must be kept well protected against moisture, as water decomposes it, evolving acetylene and leaving slaked lime.—(Nonproprietary.)

CALCIUM CHLORIDE, $CaCl_2$, is familiar to pharmacists as far as physical properties are concerned, being official. While formerly employed internally only in rachitis, arthritis, and chronic itching, it has in late years come into prominence as a means of arresting persistent bleeding, internally as well as topically. For this purpose it is given in doses of 10 to 20 grains several times daily, and applied locally in 1 to 15 solution.—(Nonproprietary.)

CALCIUM-CREOSOTE is described under its trade name *calcreose.*

CALCIUM DIMETHYLENE-ARSENATE is a synonym of *calcium cacodylate*, which see.

CALCIUM EOSOLATE, $(C_9H_7S_2O_{12})_2.Ca_3$, is the calcium salt of trisulpho-acetyl-creosote. It is a grayish powder, of slightly pungent and ethereal odor, and acrid empyreumatic taste; soluble in about 10 parts of water, very slightly soluble in alcohol, but insoluble in chloroform, and readily soluble in hydrochloric, citric and some other organic acids. It represents approximately 25 per cent. of creosote. It has been used by Dr. H. Stern in diabetes and ulcerative phthisis. Dose, 5 to 20 grains three times a day.—Mfrs.: Berliner Capsules-Fabrik, Berlin, Germ.

CALCIUM GLYCERINOPHOSPHATE, $PO.O_2CaO.C_3H_5(OH)_2$+aq., also known by the brand name *neurosin*, occurs as a white powder, soluble in about 40 parts of cold water, and almost insoluble in boiling water or alcohol. It is the salt of glycerinophosphoric acid most used—in rickets, wasting diseases, and convalescence from infectious diseases. Dose, 2 to 5 grains three times daily in syrup or simple solution. It should not be dispensed in solution with carbonates, phosphates or lead salts, as decomposition is likely to ensue; and its solutions do not keep well and should hence be prepared only in small quantities at a time. Citric acid increases the solubility of the compound.—(Nonproprietary.)

CALCIUM GUAIACOL-SULPHONATE.—See *guaiacyl.*

CALCIUM HIPPURATE is a white, crystalline powder soluble in about 27 parts of water and employed as a uric-acid solvent and antirheumatic. Dose, 5 to 20 grains.—(Nonproprietary.)

CALCIUM HYDROCHLOROPHOSPHATE is marketed only in 25 per cent. solution, which occurs as a yellowish liquid of the specific gravity of 1.225 at 15° C., and miscible with water. It is used in tuberculosis, scrofula, rickets, etc. Dose, 5 to 15 drops three times daily in water.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CALCIUM IODATE, $Ca(IO_3)_2$+$6H_2O$, is also known by

the trade name *calcinol*. It occurs as a white powder or small crystals, soluble in about 400 parts of water and insoluble in alcohol. It is employed as an internal antiseptic in cystitis and gastro-intestinal fermentation, and externally in diphtheria and in ulcers and in other lesions in which iodoform is usually applied. Dose, 3 to 5 grains three times a day.—(Nonproprietary.)

CALCIUM LACTATE, $Ca(C_3H_5O_3)_2+5H_2O$, occurs as white, odorless granules or crystalline masses, soluble in about 15 parts of water. It was formerly employed only as an alterative tonic in scrofula and allied cachexias, but has latterly come into prominence as a substitute for calcium chloride in conditions referable to defective blood coagulability, as a preventive of post-operative hemorrhage in nose and throat surgery, and in such blood dyscrasias as boils, urticaria, hemoglominuria, etc. The ordinary adult dose is 15 to 20 grains three times daily, before meals, in solution; children take proportionately less according to age.—(Nonproprietary.)

CALCIUM LACTOPHOSPHATE is a combination of calcium lactate and phosphate. It is marketed in two forms: *crystalline*, forming white, hard scales, soluble in water and containing 1 per cent. of phosphorus; and *powder*, insoluble in water. It is used as an alterative and anticachectic. Dose, 3 to 10 grains three times a day.—(Nonproprietary.)

CALCIUM MONOBROMBEHENATE.—See *sabromine*.

CALCIUM ORTHO-GUAIACOLSULPHONATE is *guaiacyl*, which see.

CALCIUM PERMANGANATE, also known as *monol* and *acerdol*, was introduced as a more agreeable and yet more powerful substitute for the potassium salt as a mouth-wash and internal disinfectant in diarrheas of children. It occurs as brownish-violet, very deliquescent crystals, readily soluble in water. Dose for children, ½ to 2 grains.—(Nonproprietary.)

CALCIUM PEROXIDE of the market is a mixture consisting essentially of calcium peroxide (CaO_2), hydrogen peroxide, calcium hydroxide and calcium carbonate; it contains about 60 per cent. of CaO_2, equivalent to 13.4 per cent. of available oxygen. It occurs as a light cream-colored, odorless and tasteless powder, which is practically insoluble in water but on contact therewith is gradually decomposed into hydrogen dioxide and calcium hydroxide, the former being further decomposed by the latter with liberation of oxygen. Dilute acids decompose it with formation of a solution containing hydrogen dioxide. It is used internally as a gastro-intestinal antiseptic and antacid; technically, as an ingredient of dentifrices, etc. Dose, 2 to 5 grains in water or with sodium bicarbonate. —(Nonproprietary.)

CALCIUM PHENOLSULPHONATE (*calcium sulphocarbolate*), $Ca(C_6H_5O_4S)_2$, occurs as a white or pinkish-

white, almost odorless powder or small crystals, having an astringent, bitter taste, and readily soluble in water or alcohol. It is used as an intestinal antiseptic. Dose, 2 to 6 grains.—(Nonproprietary.)

CALCIUM SACCHARATE, $C_{12}H_{12}O_{11}.3CaO$, occurs as an amorphous, white powder, soluble in water, and is used as an antidote in poisoning by the mineral acids, also as an antacid and antizymotic. Dose, 30 to 300 grains. It is also marketed under the trade name *antacedin*.—(Nonproprietary.)

CALCIUM SALICYLATE, $(C_7H_5O_3)_2Ca+2H_2O$, occurs as a white, odorless, tasteless powder or crystals, sparingly soluble in water, more freely so in carbonated water. It is prescribed chiefly in gastroenteritis and summer diarrheas of children, in doses of 5 to 20 grains.—(Nonproprietary.)

CALCIUM SULPHOCARBOLATE.—See *calcium phenolsulphonate*.

CALCIUM SULPHOICHTHYOLATE.—See *ichthyol-calcium*.

CALCODAT is a trade name for *calcium peroxide*.

CALCREOSE *(calcium-creosote)* is defined as a chemical combination of calcium and creosote, and occurs as a reddish-brown, granular powder containing about 50 per cent. of beechwood creosote. It is used in place of the latter. Dose, 5 to 30 grains, gradually increased to the point of tolerance.—Mfrs.: Maltbie Chem. Co., Newark, N. J.

CALCUSOL is described as a combination of piperidine parasulphaminebenzoate and potassium carbonate, and is intended as a remedy for rheumatic gout.

CALLAQUOL is a turbid, milky liquid of pleasant aromatic odor, consisting, it is stated, of an ester of oxy-tricarballylic acid in combination with a special soap solution containing oil of thyme mainly to cover the disagreeable odor of the chief constituent. It is employed principally as a lotion on compresses and as a wash for wounds.—Mfr.: Chem. Fabrik Fr. Braun, Nürnberg, Germ.

CALLIANDREIN is described as a glucoside of calliandra grandiflora, a Mexican shrub. It is a white, odorless, water-soluble powder, whose aqueous solution froths on shaking and emulsifies many substances. It has been used in intermittent fever; ten ¾-grain pills in the course of twenty-four hours.

CALMINE *(not calmin)* is another brand name for *sodium diethylbarbiturate* (veronal-sodium, medinal, etc.).

CALODAL or *kalodal* is a dietetic prepared from meat, and intended for use subcutaneously or by enema as well as per os. It contains 95 per cent. of readily soluble albuminous substances, and small quantities of meat salts (especially phosphates, traces of iron, and 0.2 per cent. of NaCl.). It forms a yellowish-brown powder, which is easily but slowly soluble in water and almost odorless and

tasteless. Dose, about 1 dram.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

CALOMELOL, or *colloidal* or *soluble calomel*, is a whitish-gray, odorless, tasteless powder, soluble in alcohol, ether, benzene and water, and yielding therewith a milk-like fluid. It contains 80 per cent. HgCl and 20 per cent. albuminous substances. It is used as a dusting-powder in syphilitic ulcers, as moist 2 per cent. dressings, and as ointment by inunction in syphilis. *Calomelol ointment* contains 40 per cent. of calomelol and 2 per cent. of free mercury. It is of pale-gray color and nearly odorless, and marketed in tubes with graduated labels. It is used by inunction in syphilis, 1 to 1½ drams at a time.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

CALOMELOL-OPIUM tablets contain ⅙ grain of calomelol and 1/10 grain of opium, and are used in syphilis.

CAMPHACOL is stated to be a condensation product of camphoric acid, formaldehyde and guaiacol, or the camphoric acid ester of methylene-diguaiacol. It is a crystalline substance used in phthisis, broncho-pneumonia, cystitis, etc. Dose, 5 to 20 grains. See caution under *formaldehyde*.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

CAMPHALUM is a veterinary siccative vulnerary containing camphor 2 per cent., carbolic acid 4 per cent., and exsiccated alum 94 per cent.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

CAMPHENOL is a liquid disinfectant and antiseptic described as "an emulsion or saponification of the three higher cresols and camphor," and claimed to be non-poisonous, noncorrosive and nonstaining.—Mfrs.: Johnson & Johnson, New Brunswick, N. J.

CAMPHOID is a substitute for collodion introduced by Martindale, and said to consist of a solution of pyroxylin and camphor in absolute alcohol.—Mfr.. Wm. Martindale, London, Eng.

CAMPHOPHENIQUE is claimed by the manufacturers to be composed of phenol 49 per cent. and camphor 51 per cent. Examinations made at the chemical laboratory of the American Medical Association seem to show that it contains approximately 20 per cent. of phenol, about 38 per cent. of camphor and the balance is liquid petrolatum. It is an antiseptic and anodyne. Camphophenique *Powder* was found by analysis made at the same laboratory to consist of about "92 per cent. of talcum, the remainder being chiefly camphor with a small amount of phenol."—Mfrs.: Camphophenique Co., St. Louis, Mo.

CAMPHORIN is artificial camphor.

CAMPHOROXOL is a 3 per cent. solution of hydrogen peroxide containing about 33 per cent. of alcohol and 1 per cent. of camphor to enhance its antiseptic power and at the same time render it more stable. It is used (generally in 10 to 15 per cent. dilutions) in ozena, pharyn-

gitis, otitis and other affections in which ordinary hydrogen dioxide solution is employed.—Mfr.: C. Raspe, Weissensee, Germ.; agts.: C. Bischoff & Co., Inc., New York.

CAMPHOSAN is neutral santalol ester of camphoric acid, or *santalol camphorate*, of the formula $C_5H_{14}(CO_2)_2(C_{15}H_{23})_2$. It occurs as a brownish-yellow oil, easily soluble in alcohol, chloroform or ether, and exhibits a faintly aromatic odor and a slightly bitter taste. It is put forward as a remedy in prostatic, urethral and bladder troubles, similarly to oil of sandalwood. Dose, 5 to 15 minims, in capsules (so marketed).—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

CAMPHOSSIL is the designation that has been applied to a condensation product of camphor and salicylic acid, of Italian origin. The article occurs as a white, crystalline, fatty, deliquescent mass, of camphoraceous odor, almost tasteless, and insoluble in water. It is administered in doses of 8 grains as an antipyretic and internal disinfectant (principally in typhoid fever and infectious diarrhea).

CANCROIDIN (Schmidt) is prepared from pure cultures obtained from human carcinomas and used by injection for diagnostic purposes. Dose, 1/2400 grain as the minimum.—Mfrs.: Bakt.-Chem. Laboratorium W. Schmidt, Cologne, Germ.

CANNABINE TANNATE is obtained from Indian hemp, after removal of the ethereal oil by distillation with steam, by extraction with water and precipitation with tannin. It is a brownish powder of slightly bitter but very astringent taste; soluble in alkalinized water or alcohol. It is used as a mild hypnotic and a nerve sedative. Dose, 5 to 15 grains; maximum dose, 15 grains.—Mfr.: E. Merck, Darmstadt; agts.: Merck & Co., New York.

CAPILLIN is what Mindes calls a condensation product of tannin, chloral hydrate and resorcin, which is intended as a succedaneum for captol.

CAPRENALIN is the name adopted by John Wyeth & Bro., Philadelphia, Pa., for *epinephrine* as made by them. In view of the recent decision of the U. S. Circuit Court of Appeals the article will doubtless be withdrawn from the market.

CAPSICIN is a terse name for *oleoresin capsicum* (official).

CAPSICOL is "a solidified embrocation representing oleoresin capsicum, camphor, croton oil, turpentine oil, aromatic and antiseptic oils, with a base of especially prepared petroleum and purified animal fat with olive oil." It is offered as a local counter-irritant, in 2-oz. collapsible tubes.—Mfr.: Norwich Pharmacal Co., Norwich, N. Y.

CAPSOLIN is a counter-irritant ointment containing *oleoresin of capsicum*, camphor, oil of turpentine, oil of *cajeput and croton* oil, and used topically in neuralgia,

pleuritic pains, rheumatism, etc.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

CAPSULES, DIURETIC OIL, introduced by Dr R. Kobert, each contain 1½ minims of a mixture of equal parts of oils of juniper, lovage, angelica and jaborandi leaves, apiol, safrol, guaiacol, terpineol and borneol. They are intended to be used in place of the old-fashioned diuretic teas in dropsy, vesical catarrh, etc. Dose, 2 to 4 capsules several times daily.—Mfrs.: Schimmel & Co., Milititz, near Leipsic, Germ.; agts.: Fritzsche Bros., New York.

CAPSULES GELODURATED is the trade name adopted for gelatine capsules hardened with formaldehyde so that they will pass through the stomach unchanged and disintegrate only on reaching the intestines.—Mfr.: G. Pohl's Capsule Works, Schönbaum, Germ.

CAPTOL is a condensation product of tannin and chloral. It occurs as a brown, amorphous, hygroscopic powder, which is soluble in hot water or in alcohol; alkalies decompose it. It was introduced by Eichhoff as an antiseborrheal remedy as well as a prophylactic, and is used mostly as a compound spirit (so marketed in this country), consisting of a solution of 2 parts each of captol, chloral hydrate, and tartaric acid, and 1 part of castor oil, in 200 parts of 65 per cent. alcohol.—Mfr.: Ferd. Mülhens, Cologne, Germany; Mülhens & Kropff, New York.

CARBOFORMAL BRIQUETS ("Glühblocks") are hexagonal coal-briquets containing a cavity filled with paraformaldehyde. When lighted, they glow, whereby the chemical is reconverted into formaldehyde gas.—Mfr.: Max Elb., Dresden, Germ.

CARBONEOL is a substance obtained by dissolving coal-tar in carbon tetrachloride and evaporating. It occurs as a thin, black lquid of not unpleasant odor and a specific gravity of 1.328. It is offered as an application in skin diseases, especially eczema.—Mfr.: Hirsch-Apotheke, Frankfort-on-M., Germany.

CARBONOL is a perfectly white, odorless, tasteless liquid petrolatum for internal or external use.—Mfr.: Wm. S. Merrell Chem. Co., Cincinnati, O.

CARBOSANT is the trade name applied to the *carbonic acid ester of santalol*, or *santalol carbonate*, $C_{31}H_{46}O_3$. The product is a nearly tasteless and odorless oil-like liquid, soluble in oils and in alcohol, ether or chloroform, but insoluble in water. It contains about 90 per cent. of santalol, and is used as a succedaneum for sandalwood oil. Dose, 10 to 15 minims three times a day, with hot milk or in capsules. Marketed also in 5-minim capsules.—Mfrs.: Heyden Chem. Works, New York.

CARBOTERPIN is a solution of coal-tar in terpinol, occurring as a dark brownish-red liquid of not unpleasant odor and of the specific gravity of about 0.910. It is used in skin diseases, particularly psoriasis.—Mfr.: Hirsch-Apotheke, Frankfort-on-M., Germany.

CARDIOTONIN is said to consist essentially of the cardiotonic principles of convallaria and caffeine sodio-benzoate. It is employed as a diuretic and a cardiac tonic, in doses of 1 to 2 c.c. of the standardized solution in which form it is marketed.—Mfrs.: Degen & Kuth, Düren, Germany.

CARGENTOS *(Mulford's colloidal silver-oxide)* forms black, shining, odorless, tasteless scales, soluble in all proportions in water and glycerin, forming solutions that are reddish-brown by transmitted light and greenish-black by reflected light. It contains about 50 per cent. of silver, and is employed as a bactericide and astringent, like silver nitrate; mostly externally in 5 to 25 per cent. solutions, rarely internally in gastric ulcer and the like. Dose, 1 to 2 grains.—Mfr.: H. K. Mulford Co., Philadelphia, Pa.

CARNINE is a French preparation represented by the makers as "the juice of rare meat, prepared by cold process. Each tablespoonful represents 100 grams of raw meat." Agts.: E. Fougera & Co., New York.

CARNOSE is a nutritive extract prepared from yeast and malt.—Mfr.: O. Overbeck, Grimbsley, Eng.

CAROID is a brand of the active digestive principle of the juice of the papaw (carica papaya), which substance is on the market also under various other trade names. It is active in acid, neutral, or alkaline media, but particularly so in the last-named. Dose, 2 to 5 grains. It is also marketed as tablets in various combinations.—Mfrs.: Mead, Johnson & Co., Jersey City, N. J.

CAROPAN (from *caro* and *panis*) is a pulverulent mixture of equal parts of somagen and malt extract. It is readily and completely soluble in water and has a tatste reminding one of malt and "zwieback." It is put forward as a nutrient.—Mfr.: Dr. A. Wolff, Bielefeld, Germ.

CARPINE *(naphthol-sulphur cream)* contains as its therapeutically active ingredients betanaphtol and sulphur, and is offered as an antiparasitic application for use on the skin and the scalp.—Mfrs.: Hudson & Co., New York.

CARVACROL IODIDE will be described under its more usual title of *iodocrol.* (Uncombined carvacrol [oxycymol], a thick aromatic liquid, has been used by instillation in toothache).

CASANTHROL is the name applied by Unna to a mixture of his casein ointment with 10 per cent. of "extractum lithanthracis" (that is, the ether and benzol-soluble constituents of coal tar). It occurs as a thick emulsion which is soluble in water; applied to the skin, it forms a dry, elastic coating. It is used in eczema, prurigo, etc. Mineral acids, acid salts and other substances that coagulate casein, should not be mixed with it or at most to the *extent of not* more than 1 per cent.

CASCARA PEPTONOIDS represents 30 grains of cas*cara and 1 minim* of nux vomica tincture to each table-

spoonful, the menstruum being liquid peptonoids.—Mfrs.: Arlington Chem. Co., Yonkers, N. Y.

CASCARIN is a substance isolated by Leprince from cascara sagrada and considered by him as the active principle of the drug. It occurs as odorless, tasteless needles, insoluble in water but soluble in alcohol. It is given to adults in doses of 2 to 5 grains, usually in pills; children in proportion.—Marketed by E. Fougera & Co., New York.

CASCAROPHEN is the name applied to tablets each containing cascarin ⅛ grain, strychnine sulphate 1/80 grain, leptandrin 1/12 grain, emetine 1/67 grain, and phenolphthalein ½ grain. They are used as a laxative. Dose, 1 to 3 tablets.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

CASEIN-ALBUMOSE SOAP is a neutral, superfatted soap recommended by Delbanco as a base for other medicated soaps as well as per se as a dermic in eczema, etc.

CASEIN-HYDROL is a diabetes remedy consisting of equal proportions of magnesium peroxide and calcium phosphate-casein.—Mfr.: J. Baer, Zurich, Switz.

CASEIN-SILVER is *argonin*.

CASEIN-SODIUM is a food marketed as *nutrose*, under which heading it will be described.

CASEIN TANNATE.—See *tannocasum*.

CASOGEN is a nutritive preparation said to contain 94 per cent. of milk protein, 4 per cent. of glycerophosphates and 1 per cent. of ovolecithin.

CASTANTHUS is a liquid laxative and cholagogue, each fluid dram of which represents cascara sagrada 15 grains, leptandrin ⅛ grain, and chionanthus 5 grains. Dose, 1 to 2 teaspoonfuls.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

CASTOR-LAX is a pulverulent form of castor oil, the absorbent being magnesia. It is offered as a tasteless form of castor oil. Dose, 1 to 2 teaspoonfuls.—Mfr.: Castor-Lax Co., New York.

CATALYSIN is a compound digestive powder analogous to *compound pepsin powder* N. F.—Mfrs.: Chapman Mfg. Co., Chicago, Ill.

CEALGIC is said to be a mixture of acetanilide, citrated caffeine, ammonium chloride, neurodin, sodium bicarbonate and digitalin. It is put forward as an antipyretic and anodyne.—Mfrs.: Hy. R. Gering Co., Omaha, Neb.

CEARIN is an ointment-base introduced by Issleib and consisting of 1 part of white carnauba wax, 3 parts of ceresin and 16 parts of liquid paraffin.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

CEDRARINE is synonymous with *phenzoline* or *orexine*.

CELLASIN is a product said to be "derived from fungi; a metabolic ferment which splits sugar, starch, fat and peptone"; *supposed to* be active in the alkaline media of *the intestines, blood* and tissues; not affected by the *stomach acidity*. According to analyses made under the

auspices of the American Medical Association, cellasin is "a mixture of an acid-producing organism and a protein substance, presumably casein." It occurs as a brownish-white powder, soluble in alkaline liquids. It is specifically recommended for diabetes and the early stages of tuberculosis. Dose, 3 to 15 grains.—Mfrs.: Mead, Johnson & Co., Jersey City, N. J.

CELLOTROPIN *(monobenzoyl-arbutin)* $C_{19}H_{20}O_8$ results from the action of benzoyl chloride upon arbutin in neutral solution. It is a white, odorless, tasteless powder; soluble in about 1300 parts of water, easily so in alcohol, and insoluble in ether or chloroform. It is intended for use in infectious diseases (especially tuberculosis and scrofula). Dose, 4 to 8 grains three times daily.—Mfrs.: H. Finzelberg's Nachf., Andernach, Germ.

CEPHAELINE HYDROCHLORIDE, $C_{14}H_{19}NO_2.HCl$, is the salt of a second alkaloid found by Dr. Paul in ipecac. It occurs as a yellowish powder, soluble in water or alcohol, and is recommended as an emetic in doses of 1/12 to 1/8 grain.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CEPHALALGIN consists of "caffeine and oleoresin of celery, associated with catalysin (compound digestive powder)," each 5 grains, the ordinary adult dose, representing 1 grain of caffeine. It is used in headache.—Mfrs.: Chapman Mfg. Co., Chicago, Ill.

CEPHALIN is reported to be a mixture of 5 parts each of antipyrin and roasted coffee, and 2 parts each of caffeine and sodium salicylate; a headache remedy. Dose, 5 to 10 grains.

CEREBRIN is an extract of the gray matter of the brain of calves, used in chorea, hysteria, and other affections of the nervous system and in alcoholism. Dose, 3 to 5 grains three times a day. Marketed also as tablets of 3 and 5 grains each. (It is not to be confounded with the definite nitrogenous, phosphorus-free constituent of brain matter known as "cerebrin," which has the formula $C_{90}H_{180}N_2O_{15}$ and is not used therapeutically.)—Mfrs.: A. Poehl & Sons, St. Petersburg, Russia; agts.: Lehn & Fink, New York.

CEREVISINE is a dried medicinal yeast, "desiccated yeast cultures prepared from the cells of the saccharomyces cerevisiæ at a low temperature and in a vacuum." It occurs as a granular powder, and is recommended for use internally in boils, tuberculosis, and diabetes, and locally in leucorrhea, vaginitis, etc. Dose, a teaspoonful before meals, given in water with a little sugar. Used externally in 5 to 20 per cent. suspension or paste.—Mfr.: Vial, Paris, France; agts.: E. Fougera & Co., New York.

CEREOLIN is described as the fatty substance of yeast, *and has been* recommended for internal use in *furunculosis, acne and* the like. It is marketed as 0.1 gram pills, *3 to 5 of* which constitute the daily dose.—Mfrs.: C. F.

Böhringer & Söhne, Mannheim, Germ.; agts.: Merck & Co., New York.

CEROMENTUM is *menthol-eucerin*, and is exploited "for the cutaneous treatment of tuberculosis of the lungs according to the method of Court Councilor Dr. K. Stepp." —Mfrs.: Eucerin Fabrik, Aunund, Germ.

CEROSE is an expectorant and bronchial sedative, each fluid ounce of which contains codeine phosphate 1⅓ grains, ipecac 1 grain, horehound 2½ grains, wild cherry 2½ grains and eucalyptus 1 grain. Dose, a teaspoonful every three or four hours.—Mfr.: John Wyeth & Bro., Philadelphia, Pa.

CETOSAN is a mixture of petrolatum and the alcohols contained in spermaceti, Chinese wax and beeswax (which alcohols are said to impart water-absorptive properties to the ointment base), and 30 per cent. of water. *Anhydrous cetosan* is the water-free base.—Mfr.: Hirsch-Apotheke, Frankfort-on-M., Germ.

CETRARIN, or *cetraric acid*, $C_{30}H_{20}O_{11}$, is the bitter principle of Iceland moss (cetraria islandica). It occurs as a white crystalline powder or very small needles, sparingly soluble in water, more freely in solutions of alkali carbonates. It is prescribed chiefly in anemia and chlorosis. Dose, 1 to 3 grains several times a day.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CHAVOSOTE is a dental disinfectant defined as the methyl ester of estragol (para-allyl-phenol), and occurs as a highly refractive liquid having an aromatic odor and boiling at 229° C.—Mfrs.: Chem. Fabriken von Thaan und Mülhausen, Germany.

CHELIDONINE PHOSPHATE, SULPHATE and TANNATE, are salts of the alkaloid of chelidonium, which has the formula $C_{20}H_{19}NO_5+H_2O$. They occur as white or nearly white crystalline powders soluble in water. They are used as mild narcotics, particularly in children—in gastric and intestinal pains; also in gastric ulcer and cancer of adults. Dose (adults), 1 to 3 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CHIELIN is described by the manufacturers as an oily extract of tulip bulbs, and extolled in various skin diseases. According to others, it is essentially a superfatted, strongly alkaline soda soap, and "chielin cream," a mixture of zinc oxide, talcum, chielin, wool fat, tincture of benzoin, water and glycerin.—Mfr.: "Chielin," Berlin, Germ.

CHINA-BLUTAN *(cinchona-blutan)* is referred to under *blutan*.

CHINALGEN is *quinalgen*.

CHINAPHTOL, or *quinine beta-naphtol-monosulphonate*, will be described under *quinaphtol*.

CHINARSIL *(quinarsil)* is a foot-and-mouth disease *(veterinary)* remedy, consisting of a combination of quinine hydrochloride and sodium arsanilate. It contains 33

per cent. of quinine and 67 per cent. of aminophenylarsinic acid, and is marketed in ampoules containing sterile solutions of various strengths.—Mfrs.: Chem. Fabrik. Aubing, Germ.

CHINASEPTOL, or *quinaseptol*, is better known by the trade name *diaphtol*, and will be referred to under that title.

CHINEONAL is the trade name applied to *quinine diethylbarbiturate*, the quinine salt of veronal, containing 63.78 per cent. of quinine and 36.22 per cent. of the acid radicle (veronal). The article occurs as white, bitter needles that melt at 132° C. and are soluble in about 500 parts of water, 8 of alcohol, and 12 of chloroform. It is used in febrile infectious diseases and septic processes, as well as a nerve sedative. Dose, 10 grains at noon, or at bedtime; in whooping-cough children take 1 to 3 grains two or three times a day. Furnished also as 5-grain plain and 3-grain sugar-coated tablets.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CHINOFORM was first described as a compound of cincho-tannic acid and formaldehyde. The name has been recently applied to *quinine formate*. See caution regarding formaldehyde and formates under formaldehyde.

CHINOFORM is the trade name of *formin* (hexamethylenetetramine) *quinate*, which compound is better known here as *chinotropin;* see this.

CHINOPYRIN *(quinine-antipyrin)* is what Dr. G. Santesson calls a combination of 3 parts of quinine hydrochloride and 2 parts of antipyrin. It occurs as a white powder, readily soluble in water and hence specially intended for subcutaneous use in malaria. Dose, 5 to 20 grains.

CHINOSOL is the trade name applied to normal *oxyquinoline sulphate*, $(C_9H_7ON)_2H_2SO_4$. It occurs as a yellow powder, of saffron-like odor, and pungent astringent taste; soluble freely in water and in alcohol or ether. It is intended for use as a surgical and household antiseptic chiefly, but has been used in a very small way internally in gastro-intestinal diseases. It is applied in 1 in 100 to 1 in 4,000 solutions, according to purpose; it does not coagulate albumin. Alkalies decompose chinosol; and with corrosive sublimate, iron and other metallic salts it forms highly-colored compounds having staining properties. It is marketed also as tablets containing 15 grains. Dose, 5 grains three times daily.—Mfrs.: Franz Fritsche & Co., Hamburg, Germ.; agts.: Chinosol Co., New York.

CHINOTROPIN *(urotropin* or *hexamethylenetetramine quinate)* occurs as a white powder readily soluble in water. It is employed in gout and bacilluria, similar to the older urotropin (formin, aminoform, cystogen, hexamethylene-*tetramine, etc.*), but is said to liberate formaldehyde in the *system more freely* than the latter. Dose, 7½ to 20 grains *two or three times* daily, as tablets (so marketed). See

caution under *formaldehyde*.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

CHLORAL-ACETONE-CHLOROFORM is described under *cloran*.

CHLORALAMID is a German trade name for the now official *chloralformamide* (formamidated chloral). Marketed also as an elixir containing 30 grains to the fluid ounce. See caution under *formaldehyde*.—Mfr.: E. Schering, Berlin, Germ.; agts.: Lehn & Fink, New York.

CHLORAL-ANTIPYRIN.—See *hypnal*.

CHLORALBACID is defined as a chlorine substitution product of albumin, containing 3 per cent. of chlorine intramolecularly combined. It occurs as a yellowish-white powder, easily soluble in water and without unpleasant odor or taste. It is used in gastro-intestinal affections characterized by insufficient secretion of hydrochloric acid or abnormal formation of organic acids, or by insufficient intestinal absorption or peristalsis. Dose, 15 to 30 grains before meals. Marketed also as 7½-grain tablets.—Mfr.: Ludw. W. Gans, Frankfort-on-M., Germ.; agts.: Mathieson & Co., New York.

CHLORALIA is a liquid hypnotic, sedative and sudorific preparation, containing in each fluid ounce 5 grains of "kalarine," 96 grains of chloral hydrate, and 1 grain each of extracts of conium, hyoscyamus and cannabis indica. Dose, 30 to 60 minims.—Mfrs.: Penn Pharm. Co., Philadelphia, Pa.

CHLORALIN.—See *chlorolin*.

CHLORAL-ORTHOFORM is a compound of molecular quantities of chloral and meta-amido-para-oxybenzoic ester (orthoform, or [formerly] orthoform "new"). It forms yellow, tasteless crusts that can easily be reduced to powder; soluble in ether or hot alcohol, insoluble in water. It is intended as a hypnotic. Dose, 8 to 15 grains.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

CHLORALOSE, chemically *anhydro-gluco-chloral*, $C_8H_{11}Cl_3O_6$, is obtained by heating anhydrous chloral and glucose together. It occurs as small white crystals, of disagreeable, bitter taste; readily soluble in alcohol or ether, sparingly so in water. It has been employed as a hypnotic. Dose, 3 to 10 grains; maximum dose, 12 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CHLORANODYNE contains in each fluid ounce morphine hydrochloride 2⅞ grains, fluid extract cannabis indica 46 minims, diluted hydrocyanic acid 9 minims, chloroform 46 minims, oil of peppermint 1½ minims, and tincture capsicum (U. S. P. 1890) 1½ minims. It is used in colic, etc. Dose, *usually* 15 minims, diluted.—Mfrs.: *Parke, Davis & Co., Detroit*, Mich.

CHLOROETHOFORM (chlorœthoform) is the name proposed in England for pure chloroform admixed with ¼ per

cent. of ethyl chloride, which addition is claimed to yield a preparation less dangerous than chloroform alone as a general anesthetic.

CHLORBUTANOL *(acetone-chloroform; trichlor-tertiary-butyl alcohol)*, $C_4H_7OCl_3$, is produced by the reaction of acetone on chloroform. It occurs as small, white, volatile crystals, of camphoraceous odor and taste and soluble in alcohol, ether, chloroform or glycerin, and sparingly soluble in water. It is employed as a local anesthetic, anodyne and nerve sedative; also as a preservative of medicamentous solutions. Dose, 5 to 20 grains. As a local anesthetic a concentrated aqueous solution is used. (See chloretone; methaform.)

CHLORETONE is a trade name for *acetone-chloroform*, or *chlorbutanol* as marketed by Parke, Davis & Co., Detroit, Mich.

CHLOROBROM is an English specialty consisting essentially of a solution of 3 parts each of potassium bromide and chloralformamide in 29 parts of water, and used mainly in seasickness, but also as a hypnotic. Dose, a tablespoonful.

CHLOROCAMPH is a compound liniment of chloroform and camphor, each fluid ounce of which is said to contain chloroform 2½ minims, opium 5/6 grain, together with camphor, capsicum, oil of turpentine, oil of hemlock, gum thus and soap.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

CHLOROGENINE *(alstonine)* is an alkaloid from the bark of alstonia constricta, of the formula $C_{21}H_{29}N_2O_4+3½H_2O$. It occurs as a brown powder soluble in alcohol or chloroform, and is used as an antiperiodic and febrifuge. —Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CHLOROLIN *(chloralin)* is a liquid disinfectant containing about 20 per cent. of mono- and trichlorphenol and used in ½ to 3 per cent. solutions as a surgical and gynecological disinfectant and antiseptic. Marketed also as pills each containing 1/30 grain of chlorphenol for employment in tuberculosis.—Mfr.: J. Weirich, Strassburg, Germany.

CHLORPHENOL SALICYLATE.—See *chlorsalol*.

CHLORSALOL *(chlorsalol* or *para-chlorsalol)*, $C_6H_4.OH-COOC_6H_4Cl$, results from reaction between phosphorus pentachloride and a mixture of parachlorphenol and salicylic acid. Chemically it may be defined as *salicylic-acid-parachlorphenol ester*. It is used in cystitis, diarrhea, etc., in place of salol. Dose, 1 to 1½ drams in the course of a day. —(Nonproprietary.)

CHLORYL is a British trade name for pure *ethyl chloride* as made by Duncan, Flockhart & Co., London, Eng.

CHOCOLIN is a laxative dietetic containing cocoa, sugar, *manna and phenol*phthalein (⅜ grain per teaspoonful).—*Mfrs.: Stollwerck* Bros., Cologne (Germ.) and New York.

CHOLELITH pills are said to consist of acid sodium

oleate, natural salicylic acid, phenolphthalein and menthol. They are put forward as a cholagogue particularly in cholelithiasis.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

CHOLELYSIN is a cholagogue marketed in dry (tablet) form, said to consist of 13 to 20 per cent. of albumin combined with sodium oleate. Cholelysin *liquid* is reported to contain about 20 per cent. of sodium oleate together with validol, tincture valerian, pineapple essence and peppermint water.—Mfr.: J. E. Stroschein, Berlin; agts.: General Drug Co., New York.

CHOLERA SERUM is referred to under *serums*.

CHOLOGESTIN is a liquid cholagogue, intestinal antiseptic and digestive, each dose of which, a tablespoonful, is said to contain 2½ grains of sodium glycocholate, 2 grains of sodium salicylate made from natural salicylic acid, 2½ grains of pancreatin and 5 grains of sodium bicarbonate. It is also marketed in tablet form under the name *tablogestin*, each tablet containing the active medicinal ingredients of a tablespoonful of chologestin.—Mfrs.: F. H. Strong Co., New York.

CHROMIAC TABLETS are said to contain chromium sulphate 2 grains, zinc phosphide 1/10 grain, extract nux vomica ⅛ grain, cannabin 1/10 grain, cantharides 1/12 grain, and avenine 1/200 grain. They are prescribed as an aphrodisiac. Dose, 1 tablet after meals and at bedtime.—Mfrs.: Maltbie Chem. Co., Newark, N. J.

CHROMIUM SULPHATE, $Cr_2(SO_4)_3$, occurs as dark-green scales, soluble in water. Formerly used only technically, it has latterly been recommended by Dr. Louis Kolopinski, of Washington, D. C., for trial in cases of neurasthenia, exophthalmic goiter, locomotor ataxia, climacteric disturbances, etc. Dose, 4 to 8 grains three or four times daily, usually as tablets.—(Nonproprietary.)

CHRYSAROBIN OXIDIZED is obtained from the action of sodium peroxide upon chrysarobin suspended in water. It occurs as a dark-brown powder, soluble in benzene, chloroform and hot alcohol, but insoluble in water. It is employed by Unna like chrysarobin, in 5- to 10-per cent. ointments; it is considered milder in action than chrysarobin.

CHRYSAROBIN TETRA-ACETATE.—See *lenirobin*.

CHRYSAROBIN TRIACETATE.—See *eurobin*.

CIBA is a German brand name for *carbonated creosote*.

CICATRICINE is an aqueous solution of thiosinamine and antipyrin, employed subcutaneously as a discutient similarly to thiosinamine (q. v.).

CICUTINE HYDROBROMIDE is a synonym of *coniine hydrobromide*.

CIMATOXYL is described as a compound of atoxyl with an aromatic body (probably cinnamic acid?—Ed.). It has been used hypodermically in phthisis, and is said to have proved of value also in syphilis.

CIMOCOL is a syrup of potassium sulphoguaiacolate similar to *sirolin*, and like it employed in phthisis, chronic catarrhs, etc.

CICUTINE HYDROBROMIDE is a synonym of *coniine hydrobromide*.

CINCHONINE IODOSULPHATE, also known as *antiseptol*, *iodized cinchonine sulphate*, and *cinchonine herapathite*, occurs as a light, reddish-brown powder, containing 50 per cent. of iodine, soluble in alcohol or chloroform but insoluble in water. It has been recommended as a substitute for iodoform internally as well as externally. Dose, 1 to 5 grains.—(Nonproprietary.)

CINEOL is a synonym of the official *eucalyptol*.

CINEROL is a thin mercurial cream consisting of 4 grams of metallic mercury and 20 c.c. each of sterilized palm oil and sterilized sesame oil. It is used by intramuscular injection as an antisyphilitic.

CINNAMOYLPARAOXYPHENYLUREA.—See *elbon*.

CIOSE is said to be a dry, completely soluble protein product of beef, separated from extractives and containing 83 to 85 per cent. of actual protein. It occurs in light, yellowish-white scales, easily soluble in water, forming a solution having a faintly acid reaction. It is prescribed as a nutritive, and serves particularly as a means of augmenting the protein of any diet.—Mfrs.: Fairchild Bros. & Foster, New York.

CIRRHOLYSIN is the name applied to triturates of alylsulphocarbamide (thiosinamine)-bismuth triiodide, each containing 1/10 grain of the remedy and 9/10 grain of milk sugar. The article is used chiefly in ankylosis of the joints. Dose, 10 to 20 triturates during the day, with meals.—Mfrs.: Anglo-Amer. Pharm. Co., New York; agts.: E. Fougera & Co., New York.

CITARIN, chemically *sodium anhydromethylenecitrate*, $Na_2C_7H_6O_7$, is a white, slightly hygroscopic powder, of saline and acidulous taste; soluble in about 1½ parts of water, but insoluble in alcohol or ether. It has been recommended as a solvent of uric-acid deposits in gouty conditions, as well as a remedy in chronic rheumatism. It liberates formaldehyde in the blood, and this is said to form very soluble combinations with the uric acid present in the system and thus favor its elimination. Dose, 15 to 30 grains, with a copious draught of water.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

CITCELCE is an eclectic liquid antiseptic and deodorant, made according to the formula of Dr. G. W. Boskowitz, of New York. It is used in 10 per cent. to full strength.—Mfrs.: Lloyd Bros., Cincinnati, Ohio.

CITON TABLETS, *white*, contain 0.1 gram of phenolphtalein, 0.5 gram of sugar, and 0.01 gram of menthol. *The brown consist* of 0.1 gram of phenolphtalein, 0.5 gram *of sugar, 0.002* gram of vanillin, and 0.1 gram of cacao.

They are taken as laxatives. Dose, 1 to 5.—Mfr.: G. Stambach, Colmar, Germ.

CITRAMIN-OXYPHEN is a trade name for *hexamethylenetetramine methyl-citrate*, better known as *helmitol*.

CITRIC-ACID TRIPARAPHENETIDIN is *citrophen*.

CITROCOLL is defined as the *neutral citrate of amido-acet-para-phenetidin* (amidophenacetin). It is a crystalline substance, melting-point, 193° C.; readily soluble in water. It is employed as an antipyretic, antirheumatic, and analgesic. Dose, 10 to 20 grains; up to 90 grains per day.—Mfr.: Chem. Fabrik, Falkenberg, Germ.; agts.: Cellarius Co., San Francisco, Cal.

CITRONAL PILLS contain per 100, according to the manufacturer, 0.5 gram of quinine hydrochloride, 4 grams of extract of huckleberry leaves, 10 grams of citric acid, 6 grams of buckthorn extract, and powdered liquorice and liquorice extract q. s. They are used in gout, rheumatism, etc. Dose, 5 pills thrice daily.—Mfr.: R. Schoellkopf, Munich, Germ.

CITRO-PARAPHENETIDIN is the chemical designation for *apolysin; neutral citro-phenetidin* the chemical equivalent of *citrophen*.

CITROPHEN, or *neutral citro-phenetidin, paraphenetidin citrate*, or *citric-acid triparaphenetidin* ($C_6H_4.OC_2H_5.NH.CO)_3.C_3H_4.OH$, occurs as a white, crystalline powder, of tart taste, and soluble in 40 parts of water. It was introduced as a succedaneum for phenacetin in all its uses. Dose, 8 to 15 grains; maximum daily dose, 90 grains. Mineral acids decompose it.—Mfr.: Dr. I. Ross, Frankfort-on-M., Germ.

CITROSPIRIN is a combination of acetylsalicylic (aspirin) and citrated caffeine, employed as an analgesic and antipyretic. Dose, 5 to 15 grains. Marketed only in tablet form.—Mfrs.: Drs. R. & O. Weil, Frankfort-on-M., Germ.

CLAVIN is a proximate principle of ergot which has been isolated by Prof. Ernst Vahlen, of the University of Halle, Germany. The formula $C_{11}H_{22}N_2O_4$, has been assigned to it, and it occurs as a microcrystalline substance soluble in two parts of water, insoluble in absolute alcohol, ether, or benzin. It does not form salts. According to the discoverer, clavin represents the full oxytocic virtue of ergot, causing no irritation when injected hypodermically, keeps for a long time in the dry state, and its solutions can be boiled without decomposition setting in. Its aqueous solutions, however, on keeping in a warm place for any length of time, develop a fungous growth. It is marketed also as *clavin-salt tablets*, each containing 0.02 gram of clavin and 0.08 gram of sodium chloride, and intended specially for subcutaneous use dissolved in 1 c.c. of water; *and as clavin-sugar tablets*, each carrying 0.02 gram of *clavin and intended* for use by the mouth. Dose, ⅓ to 1

grain.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

COCAINE ARABINATE is a new cocaine salt introduced by Dr. Erhardt as a succedaneum for the hydrochloride, especially for lumbar anesthesia. It is said to be absorbed much more slowly and its anesthetic effect to last three times as long as that of the hydrochloride, and to disturb the nerve system hardly any.—(Nonproprietary.)

COCAINE PHENATE *(phenylate, carbolate)* as marketed by Merck is believed to be a definite compound having the formula $C_{17}H_{21}NO_4.C_6H_6O$. It is obtained by dissolving 76 parts of cocaine alkaloid in 24 parts of melted phenol crystals, and occurs as a yellowish, soft mass which is soluble in alcohol and in ether but almost insoluble in water. It is employed mainly as a local anesthetc in dentistry and in laryngeal tuberculosis, but is occasionally given internally in gastric pain. Dose, 1/12 to ¼ grain in capsules. *Cocaine phenate Poinsot* is a solution of 1 part of phenol and 2 parts of cocaine alkaloid in a mixture of 40 parts of liquid petrolatum and peanut oil. It is marketed in 1-gram tubes. *Cocaine phenate Viau* is a mixture of cocaine hydrochloride with carbolic acid.

COCO, IRON, QUININE AND STRYCHNINE is a general tonic each fluid dram of which contains soluble iron phosphate 1 grain, quinine sulphate 1 grain, and strychnine sulphate 1/64 grain, with chocolate and aromatics. Dose, 1 to 2 teaspoonfuls.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

COCO-QUININE is a suspension of quinine sulphate in chocolate-flavored syrup, 2 grains to the fluid dram.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

CODEINE METHYL-BROMIDE *(brom-methylate)*. See *eucodine*.

CODEINE ORTHOGUAIACOLSULPHONATE. See *guaiacodeine*.

CODEONAL consists of 11.76 per cent. codeine diethylbarbiturate and 88.24 per cent. sodium diethylbarbiturate. It is a white, crystalline powder of bitter taste, marketed in sugar-coated tablets containing 0.17 gram of codeonal each. It is offered as a sedative and hypnotic. Dose, 1 to 2 tablets.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

CODRENIN is a generic name for local anesthetic solutions containing various quantities of cocaine hydrochloride, adrenalin and chloretone, and designated as codrenin A, B, and C, respectively.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

CŒLIACIN is, according to Dr. Schwerdt, the dried mesenteric glands of sheep, marketed in tablets, each of which represents 0.3 gram of fresh gland. It is intended for use particularly in scleroderma.—Mfr.: Apotheker Bormann, *Gotha, Germ.*

COLALIN consists essentially of hyoglycocholic and hyo-

taurocholic acids, obtained from bile. To preserve the pulverulent condition a little magnesium carbonate is added. It occurs as a yellow powder of faint odor and persistent bitter taste, and is only slightly soluble in water. It is exploited as an active cholagogue and laxative. Dose, ¼ to ½ grain three or four times daily. Marketed in powder form and as tablets (⅛, ¼ and ½ grain).—Mfrs.: Rufus Crowell & Co., Somerville, Mass.; agts.: Schieffelin & Co., New York.

COLCHICINE SALICYLATE is not a true salt of colchicine, as this principle is not known to combine with organic acids, but rather a mixture containing 20 parts of colchicine to 7 parts of salicylic acid; a yellowish powder, soluble in water, alcohol, or ether. It has been employed in gout and rheumatism. Dose, 1/100 to 1/60 grain every four hours.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

COLCHISAL is the name applied to capsules "each of which contains ¼ milligram of colchicine, ⅛ milligram of the active principle of cannabis indica, and 20 centigrams of methyl salicylate." The article is used as an antirheumatic and antipodagric. Dose, 1 to 4 capsules several times daily.—Mfrs.: Anglo-Amer. Pharm. Co., New York; agts.: E. Fougera & Co., New York.

COLEY'S FLUID is a mixture of erysipelas and prodigiosus toxines, recommended by Dr. M. B. Coley for the treatment of malignant neoplasms, particularly sarcoma. It is injected into the tumor itself or hypodermically, in doses of ½ to 2 minims or more (sufficient to produce appropriate reaction).—Mfrs.: Parke, Davis & Co., Detroit, Mich.

COLI BACTERIN.—See under *bacterins.*

COLLA TANNICA *(tannated gelatin)* is a Swiss substitute for *tanacol,* an intestinal astringent.

COLLAFORM is a pulverulent compound of formaldehyde and gelatin, analogous to glutol and used as a vulnerary.—Mfr.: C. Fr. Hausmann, St. Galen, Switzerland.

COLLARGOL *(colloidal silver* or *soluble silver; argentum Crédé)* is an allotropic form of metallic silver, said to contain 85.87 per cent. of silver and a small percentage of albumin with products of its oxidation. It occurs as small, hard, brittle, bluish-black, scale-like pieces, that are soluble in about 20 parts of distilled water, yielding a dark olive-brown solution which keeps for several months without especial protection from light or heat. It is used to some extent in certain skin, surgical and eye diseases and infectious gastrointestinal disturbances, but chiefly intravenously in septicemia and pyemia; 1 to 2 grains in 2 to 5 per cent. solution every 12 to 24 hours. Topically it is used mostly as "unguentum Crédé" (see this); per os, in solution or tablets, ½ to 2 grains twice daily; by enema, *10 to 30 grains in* 4 ounces of boiled warm water. To prepare collargol solutions, put the drug into a perfectly clean

brown bottle, add the necessary amount of distilled water, and allow to stand until softened; then shake vigorously until complete solution is effected. It need not be filtered. It should have a clear brown color; if gray and turbid, it is decomposed. A very warm temperature is apt to decompose it.—Mfrs.: Chem. Fabrik von Heyden, Radebeul, Germ.; agts.: Schering & Glatz, New York.

COLLIGAMEN is a collective term applied to medicated adhesive bandages introduced by E. Dieterich. Mull bandages are coated on the one side with different glue-glycerin solutions. For use, the bandages are quickly immersed in cold water, applied with the adhesive surface upon the part to be dressed, and covered with cotton or an ordinary bandage. They are employed in place of Unna's glue dressings.—Mfrs.: Chem. Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

COLLOIDAL CALOMEL.—See *calomelol.*

COLLOIDAL SILVER.—See *collargol.*

COLLOSAL MERCURY and COLLOSAL SILVER are electrolytically prepared colloidal metals. They are said to be more stable than those hitherto marketed.

COLLOSIN, *acetone-collodion*, or *filmogen*, is described under the last-named heading.

COLLOXYLIN is a synonym of *pyroxylin* (soluble guncotton).

CONIINE HYDROBROMIDE *(cicutine* or *conicine hydrobromide)*, $C_8H_{17}N.HBr$, occurs as white needles or powder, soluble in 2 parts of water and in 3 parts of alcohol, and soluble also in chloroform, but insoluble in ether. It contains 61 per cent. coniine alkaloid. It is employed as an antispasmodic and antineuralgic, chiefly in traumatic tetanus, sciatica, and whooping-cough. Dose (per os), 1/60 to 1/30 grain three or four times daily; children, 1/600 to 1/60 grain. Hypodermically (in tetanus), as much as 1/20 to ⅛ grain has been injected at a time. The antidotal treatment generally consists in giving tannin, then emetics, enemas of vinegar, strychnine or atropine hypodermically, etc.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CONVACOCTA (Bahr) are aqueous plant extracts or concentrated infusions evaporated in a vacuum to the weight of the drug used in their preparation, and are intended to be used in the place of infusions or decoctions made in the usual way.—Mfr.: George Bahr, Wetzlar, Germ.

CONVALLAMARIN, $C_{23}H_{44}O_{12}$, is a glucoside from convallaria majalis, occurring as an amorphous, yellowish powder, soluble in water or alcohol. It is used as a cardiac stimulant and a diuretic. Dose, ¾ to 1 grain three to six *times daily;* hypodermically, 1/12 to ⅓ grain. Maximum *dose, 1 grain singly,* 5 grains daily. Antidotal measures: *Emetics, stomach* pump, camphor, wine, etc.—Mfr.: E. *Merck, Darmstadt,* Germ.; agts.: Merck & Co., New York.

COPPER ARSENITE several years ago came to the fore as a remedy in cholera infantum and other infectious diarrheas; 1/120 grain is administered in water every half hour until relieved, then two-hourly. It is also prescribed occasionally in dysmenorrhea and in whooping-cough. Maximum dose, 1 grain.—(Nonproprietary.)

COPPER CITRATE *(cupric citrate)*, like the preceding, is not a new introduction, but has only in recent years been employed therapeutically as a substitute for copper sulphate, mainly in trachoma. It is also known as *cupricitrol*. It forms a green or bluish-green odorless powder containing 34 to 36 per cent. of copper; very slightly soluble in water. It is prescribed as 5- to 20- per-cent. dusting powders, pencils or ointments.—(Nonproprietary.)

COPPER CYANIDE *(cupricin)* is a light, whitish powder almost insoluble in water or alcohol but soluble in ammonia water or solution of potassium cyanide, introduced as a remedy in the treatment of trachoma.—(Nonproprietary.)

COPPER METHYLENE-DISALICYLATE.—See *cuformasal*.

COPPER NUCLEINATE or NUCLEIDE.—See *cuprol*.

COPPER SULPHOCARBOLATE *(para-phenol-sulphonate)*, also known as *cupriaseptol*, $Cu(C_6H_5S_4)_2+6H_2O$, occurs as green crystals, soluble in water or alcohol. Gawalowski recommends it as an astringent antiseptic. It is used mainly in ¼- to 1-per-cent. solutions.—(Nonproprietary.)

CORIAMYRTIN, $C_{29}H_{38}O_{10}$, is a bitter principle obtained from the leaves and fruit of coriaria myrtifolia. It forms colorless crystals, soluble in water, alcohol, chloroform, or ether, and is used in conditions of collapse, particularly those due to weakening of the respiratory and vascular centers. Dose, 1/120 to 1/60 grain, subcutaneously.

CORISOL is a semi-solid oleaginous preparation of the active principle of the suprarenal capsule, used mainly in eustachian and post-nasal catarrh. *Corisol inhalant* is an oily solution of the same active principle, for use with an atomizer.—Mfrs.: Squire & Sons, London W., Eng.

CORNUTIN CONCENTRATED is described as a nearly pure solution of the alkaloids contained in ergot.—Mfr.: Fr. Schaefer, Andernach, Germ.

CORNUTINE CITRATE is the salt of an alkaloid of ergot, which, according to Kobert, is the active contractile principle of the crude drug, but, according to Tanret, is a more or less decomposed ergotinine. It is prescribed as an oxytocic and hemostatic in obstetric practice, but latterly more often in spermatorrhea. It occurs as a brownish-black, very hygroscopic powder, soluble in alcohol, sparingly and incompletely soluble in water. Dose, in hemorrhage, *1/20 to ⅛ grain;* in spermatorrhea, 1/20 grain *twice daily, in pills.* Maximum daily dose, ⅓ grain.—

Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CORNUTOL *(liquidextractum ergotæ Mulford)* is "a concentrated, permanent, non-irritating, non-nauseating and aseptic preparation of ergot, especially prepared for hypodermic and general use. Each minim represents 2½ grains of Spanish ergot." Dose, 5 to 30 minims.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

CORONILLIN is a glucoside contained in the seeds of coronilla scorpioides; a yellow powder, soluble in water or alcohol, and employed as a heart tonic and diuretic, analogous in action to digitalin. Dose, 1 to 2 grains four times daily. Used also hypodermically. Maximum daily dose, 10 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

COROSUCCIN is a new antiseptic, consisting, according to A. Bebesh and F. Begnesco, of equal parts of a 1½-percent. solution of succinic acid and 1:10,000 solution of corrosive sublimate. The succinic acid is said vastly to increase the bactericidal action of the sublimate.

CORPUS LUTEUM is the yellow granular material from beef ovaries, used in disorders of the menopause, dysmenorrhea, etc. Dose, 5 to 10 grains as capsules (so marketed).—Mfrs.: Parke, Davis & Co., and others.

CORRECTONE AND REGULIN CORRECTONE are synonyms of *regulin.*

CORVULT is a synonym of *digitalis Winckel.*

CORYFIN is defined as the *ethylglycolic acid ester of menthol* or *menthyl ethylglycolate*, $C_{14}H_{28}O_3$. It occurs as a limpid, colorless oil having a faint menthol odor. It is soluble in alcohol, ether or chloroform; sparingly soluble in water. It is employed as a succedaneum for menthol in nervous headache, coryza, hoarseness, and pharyngeal irritation. In headache it may be lightly rubbed in or painted on the forehead, avoiding the eyes; in coryza it may be applied with a brush or spray; in throat affections 3 or 4 drops may be placed on a lump of sugar and allowed to dissolve in the mouth, or mixed with warm water and used as a gargle.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

CORYL is a solution of methyl chloride in ethyl chloride, analogous to *anesthol* or *anestile.*

COTARGENT is a brand name for *colloidal silver*, an article described under *collargol.*

COTARGIT is a double salt of cotarnine hydrochloride (stypticin) and ferric chloride; ruby-red crystals, freely soluble in water, and intended for use as a styptic.—Mfr.: Dr. A. Voswinkel, Berlin W., Germ.

COTARNINE HYDROCHLORIDE is the chemical name of the article known in the trade as *stypticin;* see the *latter heading.*

COTARNINE PHTALATE is the chemical designation *of the hemostatic* marketed as styptol, which see.

COTOIN is the active principle of true coto bark; a yellow powder of pungent taste, and soluble in alcohol, ether, or chloroform, but very slightly so in water. It is used some to arrest night-sweats, but chiefly as an anti-diarrheal in dysentery, etc. Dose, 1½ to 3 grains, in wafers; maximum dose, 5 grains singly, 15 grains per day. Contraindicated when there is tendency to intestinal hemorrhage.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

CREALBIN or *creolalbin* is a compound of creolin and albumin intended as a form for administering creolin internally. It is a brown powder, representing 50 per cent. of creolin, and used as an intestinal disinfectant and astringent in doses of 5 to 15 grains.

CREDARGAN is a former name for *septargan*, a new brand of colloidal silver.

CRELIUM is a cresol-soap solution something like the official solution cresol compound.

CREMOBISMUTH *(Mulford's mixture bismuth subcarbonate)* is a milk of bismuth each fluidounce of which represents the equivalent of about 40 grains of bismuth subnitrate in the form of hydrated or basic carbonate of bismuth. It is employed as a gastro-intestinal protective and astringent. Dose, teaspoonful to tablespoonful every two or three hours.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

CREOFORM or *kreoform* or *creosoform* or *kreosoform* is a condensation product of creosote and formaldehyde; a greenish-yellow, odorless, tasteless powder, becoming light-yellow on exposure to air; insoluble in water or ether, slightly soluble in alcohol, and readily soluble in a mixture of alcohol and chloroform and in alkaline solutions. It is intended to replace creosote in tuberculosis and diarrheas. See caution under *formaldehyde*.—Mfr.: G. F. Henning, Berlin, Germ.

CREOLALBIN.—See *crealbin*.

CREOLIN PEARSON is defined as "saponified coal-tar creosote, composed of homologues of carbolic acid, water, hydrocarbons, organic bases, soda, resin, sulphur and chlorine." It occurs as a dark-brown, thick liquid of tarry odor and specific gravity 1.040 to 1.080. Soluble in about 40 parts of water, making a milky emulsion, and soluble in all proportions in alcohol, ether or chloroform. It is used as a germicide, disinfectant and deodorant, chiefly in ½- to 2-per-cent. solutions, but also in 2- to 5-per-cent. ointments (in parasitic skin diseases). Dose, internally, 2 to 5 minims in pills, three times daily; in cholera, 15 minims more frequently. Its aqueous solutions should be prepared freshly as wanted.—Mfrs.: Wm. Pearson & Co., Hamburg, Germ.; agts.: Merck & Co., New York.

CREOLOL is a coal-tar disinfectant and deodorant analogous to creolin and used just like it.—Mfrs.: White Tar Co., New York.

CREOSAL or *tannosal* is a combination of creosote and tannin. It occurs as a brown, hygroscopic powder, readily soluble in water, alcohol or glycerin, and containing 60 per cent. of creosote. It is used as a substitute for creosote in tuberculosis, also as an intestinal astringent (especially in phthisical diarrhea). Dose, 10 to 30 grains. Marketed as 6.6-per-cent. solution and as 5-grain pills.—E. Feigel, Mühlhausen, Germ.

CREOSAPOL is a disinfectant analogous to compound solution of cresol.—Mfrs.: Chem. Fabrik List, Hanover, Germ.

CREOSOFORM or *kreosoform* is the same as *creoform*.

CREOSOLID or *kreosolid* is the magnesium compound of the bivalent phenols of creosote, and forms a white powder of slight odor and taste. One part represents 2 parts of creosote. It is usually given in doses of 8 grains four times daily as a substitute for creosote or guaiacol.—Mfr.: Dr. Denzel, Tübingen, Germ.

CREOSOTAL.—See *creosote carbonate*.

CREOSOTAL-ICHTHYOL is described as a mixture of 15 parts each of creosotal and ichthyol, 30 parts of glycerin, and 10 parts of peppermint water. It is offered as an antitubercular. Dose, 20 to 40 drops three times daily, in wine or lemonade.

CREOSOTE CAMPHORATE is a compound of equal molecules of creosote and camphor, which is used chiefly as a sedative. Dose, 3 grains three or four times daily, in capsules (so marketed).

CREOSOTE CARBONATE, so called, but which should be designated carbonated creosote, is a mixture of carbonic acid esters prepared from creosote. It is better known as *creosotal*. It occurs as a yellow, viscid, clear, oily liquid, of faint odor and slightly bitter taste; insoluble in water, but soluble in alcohol, ether, chloroform and oils. It contains about 92 per cent. of creosote. It is incompatible with alkalies. It is used for the same purposes as creosote. Dose, 5 to 30 grains three times a day, in milk, wine, cod-liver oil, etc. Externally it may be applied undiluted.—(Nonproprietary.)

CREOSOTE IODIDE.—See *creosotide*.

CREOSOTE-MAGNESOL is a powder said to represent 80 per cent. of creosote, calcined magnesia being the vehicle. It is offered as a substitute for liquid creosote, which is free from the burning taste of, and the gastric irritation produced by, the latter.

CREOSOTE PHENYLPROPIONATE.—See *proposote*.

CREOSOTE VALERATE, so called, is better known as *eosote*, and will be described under that heading.

CREOSOTIDE is a chemical compound of creosote with iodine, containing about 25 per cent. of the latter. It is obtained as an amorphous, brownish powder, insoluble in water, and having but little odor and taste. It is used in all cases where it has been customary to employ creosote.

Supplied only as tablets, ¼ grain and ½ grain, and in combinations with strychnine, bismuth, iron and arsenic.—Mfrs.: Nelson, Baker & Co., Detroit, Mich.

CREOSOTINE is a palatable preparation of beechwood creosote containing 1 minim of this drug in each fluid dram. Dose, a teaspoonful to a tablespoonful or more three times a day.—Mfrs.: Penn. Pharm. Co., Philadelphia, Pa.

CRESALBIN *(kresalbin)* is a compound of creosote and albumin, offered as a succedaneum for liquid creosote as an antitubercular and antizymotic. It should not be confounded with *crealbin*, a combination of creolin with albumin.

CRESALOL *(kresalol; cresol salicylate; metacresyl salicylate)*, $C_6H_4.CH_3.O.OC.C_6H_4.OH$, is prepared from sodium metacresylate and sodium salicylate with the aid of phosphorus oxychloride. It occurs as colorless, odorless and almost tasteless crystals soluble in alcohol or ether, but insoluble in water; melting-point, 73° to 74° C. It is used as an intestinal antiseptic and antirheumatic like salol. Dose, 5 to 15 grains several times daily.—(Nonproprietary.)

CRESATIN is the trade name adopted for *metacresyl acetate*, the acetic acid ester of metacresol. It occurs as a colorless, oily liquid, possessing a characteristic odor, practically insoluble in water but soluble in oils, alcohol, ether or chloroform. It is used as an antiseptic and disinfectant, especially in nose, throat and ear diseases, either in undiluted form or in oily or alcoholic solution, as a paint or spray.—Mfrs.: Schieffelin & Co., New York.

CRESEGOL is *mercury ortho-nitro-cresol-parasulphonate;* a brownish-red, readily soluble powder intended for use as a surgical disinfectant.

CRESOL IODIDE *(ortho-cresol iodide)* will be described under *traumatol.*

CRESOL SALICYLATE.—See *cresalol.*

CRESYLOL is identical with *cresol* (official).

CRESYLONE is a liquid disinfectant containing 50 per cent. of cresylic acid (cresol), making a clear solution with water in all proportions. It thus appears to be the same as the official compound solution of cresol, and is used chiefly as a surgical antiseptic and deodorant.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

CROLASIN is the fanciful name applied to plain castor oil said to have "no taste, no odor and no color."—Mfrs.: J. J. Mason & Co., New York.

CRURIN is the trade name for *quinoline-bismuth sulphocyanide* (rhodanide), of the formula $(C_9H_7N.HSCN)_2.Bi(SCN)_3$. The drug occurs as a reddish-yellow, stable powder of non-pronounced quinoline odor; insoluble in water, alcohol or ether. It is prescribed as a siccative antiseptic, chiefly in ulcers of the leg, in 20- to 50-per-cent. dusting-powders; in 0.5-per-cent. suspension in water with

a little glycerin it is occasionally employed in gonorrhea. Marketed also as a 50-per-cent. dusting-powder, with starch.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

CRYOGENINE or *kryogenin*, chemically *metabenzaminosemicarbazide*, occurs as white, odorless, bitterish powder soluble in alcohol, chloroform or ether and in about 40 parts of water. It has been recommended by several French physicians, in doses of 5 to 15 grains, as an antipyretic in phthisis and typhoid fever.—Mfr.: A. Lumiere, Paris, France; agts.: Fougera & Co., New York.

CRYSOL is a product analogous to the official *solution cresol compound*.

CRYSTALLINE or *kristallin* is a protective similar to collodion. It is said to consist of pyroxylin (1), methyl alcohol (4), and amyl actate (15). A flexible modification is obtained by adding castor oil (5) and balsam of fir (10). The same name has been given to a liquid resembling listerine. Methyl alcohol should be avoided in external as well as internal preparations, as it possesses deadly and sight-destroying power. (See note under *formaldehyde*.)—Mfr.: W. Martindale, London, Eng.

CRYSTALLOSE is a brand of crystalline, soluble saccharin (sodium-benzoylsulphonicimide).—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

CRYSTOS figures as an ingredient of popular prescriptions "for making an eye remedy." It is a coarse, white, odorless powder, soluble in water without appreciable residue. According to analyses made at the chemical laboratory of the American Medical Association, the composition of crystos is about as follows: dried sodium borate 20 per cent., sodium chloride 20 per cent., and boric acid 60 per cent.—Mfrs.: H. S. Peterson & Co., Chicago, Ill.

CUFORMASAL is the copper salt of formasal (methylene-disalicylic acid), occasionally prescribed in ulcerative diarrhea and venereal ulcers or gonorrhea. Dose, 3 to 6 grains. See caution under *formaldehyde*.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

CUPRIASEPTOL is what Dr. Gawalowski called *copper sulphocarbolate* (phenolsulphonate); see this.

CUPRICIN.—See *copper cyanide*.

CUPRICITROL is a name applied to *copper citrate*, under which heading it is here described.

CUPROHEMOL or *cuprated hemol* is hemol with 2 per cent. of copper organically combined. It occurs as a dark brown, insoluble powder, and is used in place of the older copper compounds in tuberculosis, scrofula, etc. Dose 1½ to 3 grains thrice daily. Maximum dose, 8 grains.—Mfr.: E. Merck, Darmstadt, Germ.; Merck & Co., New York.

CUPROL *(copper nucleinate* or *nucleide)* is defined as a chemical compound of copper with nuclenic acid, containing 6 per cent. of copper. It forms a green powder, soluble in water; its solutions do not coagulate albumin and

are not precipitated by alkalies. It is employed pure or in 10-per-cent. solution as an astringent and antiseptic, largely in eye diseases.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

CURARINE, also known as *tubocurarine*, is the alkaloidal principle of curare (tubocurare). It forms a brown, deliquescent powder, soluble in water and alcohol, and recommended by Hoffmann and Hacke in tetanus. Dose, hypodermically 1/60 to 1/12 grain. The antidotal treatment usually consists of applying atropine, strychnine, artificial respiration and stimulants.—(Nonproprietary.)

CURDELETTE POWDER is said to contain the lactic acid ferment; *curdelette chocolate tablets* are said to contain chocolate in addition. They are used for making sour milk.

CUSYLOL *(cusol)* is defined as a double-salt of copper citrate and sodium borocitrate, occurring as a blue, slightly hygroscopic powder soluble in about 1 part of water and insoluble in alcohol or ether. It contains about 15 per cent. of copper. It is used chiefly in trachoma and gonorrheal diseases of the eye, as ointment, dusting-powder or solution.—Mfrs.: Gesellschaft für Anilin-Fabrikation, Berlin S O (Germ.); agts.: Lehn & Fink, New York.

CUTOL is *aluminium boro-tannate*, a light-brown powder containing 47 per cent. of tannic acid, 13.8 of alumina, and 39.2 per cent. of boric acid; insoluble in water, soluble in solutions of tartaric acid. It is used mainly as an astringent and antiseptic in skin diseases; pure or diluted, or as ointment. With tartaric acid it combines to form *soluble cutol (aluminium boro-tanno-tartrate)*, which is used in solution in certain skin diseases, gonorrhea, etc.—Mfr.: Apotheker Leuchter, Berlin W, Germ.

CUTOLIN is a styptic pencil made of aluminium biborate, used for checking minor hemorrhages.

CYCLOFORM is a new local anesthetic possessing also mild vasoconstrictive and antiseptic action, and designed particularly for use on wounds, ulcers, burns, etc. Owing to its slight solubility in water and wound secretions, it is said to have a prolonged effect coupled with diminished toxicity. It is applied pure or as 5 to 10 per cent. ointments or dusting-powders.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

CYCLORENAL is an ointment said to contain cycloform, epinephrine, Peru balsam and coryfin. It is intended for use chiefly on painful, readily bleeding wounds.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

CYLLIN is described as a creolin four times as concentrated as Pearson's creolin.—Mfrs.: Jeyes Sanitary Compounds Co., London, Eng.

CYPRIDOL is described as "a 1-per-cent. solution of mercuric iodide in an aseptic oil." It is used in syphilis. Marketed in 3-minim capsules containing 1/32 grain of

H_2I_2, and in 30-minim ampuls for intramuscular injections. Dose, 6 to 12 capsules per day, with meals.—Mfr.: Vial, Paris, France; agts.: E. Fougera & Co., New York.

CYSTAMINE and CYSTOGEN are trade names for *hexamethylenetetramine*, now official as *hexamethylenamine*.

CYSTOPURIN is the trade name adopted for *hexamethylenamine and sodium acetate*. It occurs as white, slender, long needles that are freely soluble in water. It is intended as a substitute for hexamethylenamine (which is marketed under the names urotropin, formin, cystogen, cystamine, etc.). It should be noted that the use of formaldehyde preparations or of compounds that may produce it involves a possibility of bad effect on eyesight. See caution under *formaldehyde*.—Mfr.: Joh. A. Wülfing, Berlin, Germ.

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DEALIN is, according to Zernik, a mixture of 20 parts of sodium perborate, 10 parts each of boric acid and zinc oxide, and 60 parts of a mixture of talcum with a little starch and magnesium carbonate. It is employed as a veterinary vulnerary.—Mfrs.: Dealin-Werke, Berlin, Germ.

DEBA is a trade-name for *diethylbaribituric acid*, better known as *veronal*.

DECILAN is defined as "a solution of formaldehyde and potassium oleate, containing 6 per cent. of formaldehyde gas." It occurs as a clear, alkaline liquid which is miscible with water, alcohol or glycerin in all proportions. It is used as an antiseptic and disinfectant.—Mfr.: Dr. A. Horowitz, Berlin, Germ.

DECIQUOR is a stable, tenfold solution of peptonized iron and manganese, from which the ordinary solution is made by adding to each 100 grams the same quantity of alcohol and 800 grams of water.

DEDASOL is the name applied to tablets said to represent the active principles of physiologically standardized digitalis and each of which is stated to be the equivalent of 1½ grains of the leaf.—Mfr.: A. Voswinkel, Berlin, Germany.

DEKOFA is "coffee from which about 90 per cent. of its caffeine has been removed without impairing the flavor and aroma." It is offered as a supersessor of coffee as a beverage.—Agts.: Merck & Co., New York.

DERICIN OIL is prepared by heating castor oil in an atmosphere of oxygen at 300° C. until a loss in weight of 10 to 12 per cent. is obtained. The preparation is able to absorb considerable quantities of water and is therefore used for the preparation of ointments, soaps, etc.—Mfr.: Dr. H. Noerdlinger, Floersheim, Germ.

DERMALAVON is a water-soluble ointment base made by Oswald Wiegand, Leipsic, Germ.

DERMATOL is a brand name for *bismuth subgallate*, now official.—Agts.: V. Koechl & Co., New York.

DERMOCRUCIN is defined as an ointment containing 50 per cent. of "Kreuznacher Mutterlauge" salt.

DERMOGEN is a brand name for *zinc peroxide*.—Owners: Medical Dioxide Co., New York.

DERMOSAPOL is a superfatted soap that readily takes up creosote, potassium iodide, thiocol, and other medicaments and favors their absorption through the skin. It thus forms the basis of a number of dermosapol preparations containing different active drugs.—Mfr.: Engel Apotheke, Mülheim, Germ.

DESALGIN *(colloidal chloroform)* is an analgesic in powder form which represents 25 per cent. of chloroform combined with albumin. It is put forward for use in cases of gall-stones, intestinal colic, asthma and catarrhal diseases of the bronchial tubes. Dose, 5 to 15 grains.—Mfrs.: Vertriebgesellschaft Dr. Schleich's Preparations, Berlin SW, Germ.

DESICHTOL is a deodorized ichthyol obtained by Helmers by passing steam through ichthyol, whereby the volatile oil (about ½ per cent.) is driven off. Physically it resembles ichthyol, but whether it has the same therapeutic virtues is an open question.—Mfrs.: Ichthyol-Gesellschaft, Hamburg, Germ.; agts.: Merck & Co., New York.

DESINFECTOL is a mixture of resin soaps with tar oils containing cresol or with crude cresol. It yields a turbid solution with water, and appears to be analogous with the better-known *creolin*.—Mfr.: Dr. Loewenstein, Rostock, Germ.

DETERGAL is a liquid antiseptic soap, for use by surgeons, obstetricians, etc. It contains cresol and thymol as its germicidal constituents.—Mfrs.: Sharp & Dohme, Baltimore, Md.

DEXTRI-MALTOSE is described as a malt sugar (maltose) product resulting from the action of malt diastase upon starch. It is composed approximately of maltose 51 per cent., dextrin 42.7 per cent., salts 2 per cent., and moisture 4.3 per cent. It contains no cellulose, protein nor fat, and is wholly soluble. It is used in infant feeding, to supplement the carbohydrate deficiency of cow's milk.—Mfrs.: Mead, Johnson & Co., Jersey City, N. J.

DEXTROFORM is a condensation-product of dextrin and formaldehyde, occurring as a white, almost odorless and tasteless powder, soluble in water or glycerin but insoluble in alcohol, ether or chloroform. It is a wound antiseptic like iodoform, and has been used in gonorrhea in 2½ to 5 per cent. solutions.—Mfr.: Dr. L. W. Gans, Frankfort-on-M., Germ.

DIABETIC SERUM.—See under *serums*.

DIABETIN was a trade name for *levulose*, which a few

years ago came into vogue as a substitute for cane sugar in diabetes. The name has since been abandoned, and the article is now marketed as *levulose Schering*.—See *levulose*.

DIABETSERIN is an artificial serum used as an antidiabetic. To overcome the hepatic stagnation present in cases of diabetes, to increase the flow of bile into the intestines and to improve metabolism by establishing normal circulation, as far as possible, Dr. M. Fraenkel has resorted to the use of a combination of Trunecek's serum (used principally in arterial sclerosis) with eserine and obtained good results. Two strengths are employed. *Diabetserin No. 1* contains the salts of Trunecek's serum with 0.07 per cent. of eserine salicylate. Two of the tablets represent 0.0005 gram of eserine and the salts of 100 c.c. of blood serum. *Diabetserin No. 2* consists of diabetserin No. 1 with 0.0118 per cent. of atropine; equivalent to 0.0001 gram of atropine in two tablets. The atropine is said to increase the action of the eserine; and the remedy is specially indicated where there are cramp-like pains in diabetic cases. The dose of either combination is 1 or 2 tablets thrice daily.—Mfr.: Wm. Natterer, Munich II, Germ.

DIACELLOSE.—See *regulin*.

DIACETYL-MORPHINE *(acetylated morphine)*, $C_{17}H_{17}(C_2H_3O_2)_2NO$, is a white, crystalline, odorless, bitter powder; practically insoluble in water or ether, soluble in chloroform. It is used as a succedaneum for morphine, and is used chiefly in diseases of the air-passages attended with cough, difficult breathing and spasms. Dose, 1/24 to 1/6 grain three or four times a day.—(Nonproprietary.)

DIACETYL-MORPHINE HYDROCHLORIDE occurs as a white, crystalline, odorless, bitter, neutral powder, soluble in about 2 parts of water and soluble also in alcohol but insoluble in ether. Its action and uses are the same as those of the base.—(Nonproprietary.)

DIACETYL-TANNIN.—See *tannigen*.

DIALKALOS is an effervescent granular salt containing in each dose caffeine ½ grain, potassium bromide 5 grains, lithium carbonate 2½ grains, sodium phosphate 5 grains and formamine (hexamethylenamine) 2½ grains. It is used as an alkaline diuretic, urinary disinfectant and antilithic.—Mfrs.: Sharp & Dohme, Baltimore, Md.

DIAMOND ANTISEPTICS are hand-moulded tablets of mercury bichloride; the *large* contain 7.3 grains, and the *small* 1.82 grains of this salt.—Mfrs.: Eli Lilly & Co., Indianopolis, Ind.

DIASPIRIN is the *succinic acid ester of salicylic acid*, occurring as a white, almost tasteless, crystalline powder, melting at about 178° C., readily soluble in alcohol, very sparingly soluble in water, ether, or acidulous liquids, and slowly decomposed by alkaline liquids. It contains about 77 per cent. of salicylic acid. It is used as an antirheumatic, analgesic and antipyretic, acting much like aspirin

but more strongly diaphoretic. Dose, 5 to 15 grains several times daily, as powders or 5-grain tablets (so marketed).—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

DIASTIN is a brand of diastase, used chiefly in amylaceous dyspepsia in doses of 5 grains.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

DIASTOID is "a pure, soluble, dry extract of malt, possessing well-characterized diastatic properties."—Mfrs.: Horlick's Malted Milk Co., Racine, Wis.

DIATHESIN is the name applied to synthetically prepared (from carbolic acid and formaldehyde) *saligenin* (ortho-oxy-benzyl alcohol, $C_7H_8O_2$) which was formerly obtained from salicin by hydrolysis. It occurs as fine, white leaflets, slightly bitter in taste, soluble in about 15 parts of water and freely so in alcohol or ether. Mineral acids and alkalies decompose it. It is employed in place of the salicylates in rheumatism, tonsilitis, etc. Dose, 7½ to 20 grains.—Mfrs.: Chem. Fabrik Sulzbach, near Nürnberg, Germ.: agts.: C. Bischoff, & Co., Inc., New York.

DIATUSSIN is a liquid preparation offered as a whooping-cough remedy, employed in doses of 1 to 5 drops twice a day. Marketed also as tablets called *solitussin*, each of which contains 1 drop of diatussin, and a syrup named *tolutussin*, a teaspoonful of which represents 1 drop of concentrated diatussin.—Agts.: Ernst Bischoff & Co., New York.

DIAZYME ESSENCE is said to contain the amylolytic enzyme of the pancreas devoid of trypsin and lipase, in a menstruum containing 18½ per cent. of alcohol by volume. It is an amber-colored liquid of aromatic odor and taste and slightly acid reaction. It is used as a starch-digestant to compensate for deficient salivary and pancreatic action. Dose, 1 to 2 fluid drams. *Diazme glycerole* is a similar preparation, but the menstruum is 60 per cent. glycerin; action and dose, same as of the essence.—Mfrs.: Fairchild Bros. & Foster, New York.

DIBROMCINNAMIC ACID ETHYL ESTER.—See *zebromal*.

DIDYMIN is a trade name applied to the dried and powdered fat-free testicular substance of the bull. It is marketed as tablets each representing 5 grains of the fresh organ and constituting the dose. It is used as an aphrodisiac.—Mfrs.: Burroughs, Wellcome & Co., London (Eng.) and New York.

DIDYMIUM SALICYLATE is referred to under its trade name *dymal*.

DIETHYLAMIDE VALERIANATE is *valyl*.

DIETHYLENEDIAMINE is the chemical designation for *piperazine*.

DIETHYLGLYCOCOLL-GUAIACOL HYDROCHLORIDE is the chemical name of *gujasanol;* see the latter.

DIETHYL-KETONE, also known as *proprione, metace-*

tone, and *ethyl-propionyl*, is obtained from the distillation of sugar with an excess of lime. It forms a thin, colorless, light liquid, smelling like acetone, and freely soluble in alcohol or ether, less readily so in water. It is used as a hypnotic and sedative in doses of 10 to 40 minims.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

DIETHYL-MALONYL-UREA is better known as *veronal*, which see

DIETHYLOXYACETYLUREA, $C_{13}H_{24}N_2O_5$, is a new hypnotic introduced by Dr. E. M. Houghton, of Detroit, Mich. It occurs as a clear, transparent, oily liquid, of the specific gravity 1.111, with a characteristic ethereal odor and taste. It is soluble in about 20 parts of water, and soluble also in alcohol, ether and chloroform. Its sodium salt forms beautiful flake-like crystals which are very soluble in water and have a mild, peculiar taste.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

DIETHYL-SULPHONE-METHYL-METHANE and DIETHYL-SULPHONE-METHYL-ETHYLMETHANE are the chemical appellations for *sulfonal* and *trional* respectively, now official under the names *sulphonmethane* and *sulphonethylmethane*.

DIFLUORDIPHENYL, $F.C_6H_4.C_6H_4.F$, is a diphenyl in which one atom of H of each C_6H_5 group of the carbohydrate has been replaced by an atom of fluorine. It occurs as a white, crystalline powder, of pleasant aromatic odor. It is used as a siccative and antispasmodic. (See also *antitussin*.)—Mfrs.: Valentiner & Schwarz, Leipsic-Plagwitz, Germ.; agts.: C. Bischoff & Co., Inc., New York.

DIGALEN *(Cloetta's soluble digitoxin)* is a standardized digitalis preparation, not made direct from the leaves or seeds but consisting fundamentally of the soluble amorphous form of digitoxin (Cloetta's) incorporated into (1) a clear, colorless, sterile aqueous *solution* in the proportion of 1/222 grain (equivalent to 2½ grains of digitalis leaves) to every 16 minims, and (2) *tablets* each containing 1/444 grain. It is used by mouth, intravenously, or by intramuscular injection, and is said to be quickly absorbed and eliminated. Dose, 8 to 16 minims or 1 to 2 tablets.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switz.) and New York.

DIGESTIN is a Japanese digestive ferment prepared from the okazaki fungus. It occurs as a fine, yellow powder, and is said to act alike upon milk, fibrin and starch and in acid as well as in alkaline or neutral solutions.

DIGIPOTEN is a physiologically standardized pulverulent preparation of digitalis, each grain of which is equivalent to 9 minims of digitalis tincture and to 1/11 grain of digitalin. Marketed also as ½-grain tablets.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

DIGIPURATUM is a purified extract of digitalis, said to contain 0.4 per cent. of digitoxin and 4 per cent. of

digitalin in the form of a tannoid. It is standardized biologically by the method of Gottlieb. It is claimed that 85 per cent. of the inactive substances found in the ordinary extract have been removed and that it is free from digitonin and other gastric irritants. Digipuratum is a greenish-yellow, odorless, bitter powder. Its action, dose and uses are the same as digitalis, but it is claimed that it is less liable to disturb the stomach, and on account of its exact dosage cumulative effects can be more easily avoided than with the ordinary digitalis preparations. Marketed as powder, 1½-grain tablets, and sterilized solution in 1 c.c. ampuls. Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

DIGISTROPHAN is the name applied to tablets claimed to contain all the active principles of digitalis leaves and strophanthus seed. They are obtained by evaporating the fluidextracts to dryness in vacuo, with the addition of milk sugar. Each tablet represents 0.1 Gm. (1½ grains) of digitalis and 0.05 Gm. (¾ grain) of strophanthus. *Digistrophan diuretic No. 1* contains per tablet 0.1 Gm. (1½ grains) of digitalis, 0.05 Gm. (¾ grain) of strophanthus and 0.2 Gm. (3 grains) of sodium acetate; and *digistrophan diuretic No. II* contains per tablet 0.1 Gm. (1½ grains) of digitalis, 0.05 Gm. (¾ grain) of strophanthus, 0.2 Gm. (3 grains) of sodium acetate and 0.15 Gm. (2¼ grains) of caffeine. Uses: as a heart tonic.—Mfrs.: Goedecke & Co., Berlin, Germ.; agts.: Schering & Glatz, New York.

DIGITAFERM is a synonym of *digitalis Winckel.*

DIGITAL is "a normal dialysate of fresh digitalis leaves, physiologically standardized so that 1 Gm. corresponds to 1 milligram of active principles or 0.1 Gm. of digitalis." Dose, 10 to 20 drops.—Mfrs.: La Zyma, St. Ludwig, Germ.

DIGITALIN is a drug about which considerable confusion exists among pharmacists as well as physicians. Four different digitalins are known: (1) *Digitalin French amorphous*, also designated as "digitaline chloroformique" or "Homolle's amorphous digitalin," a yellowish powder soluble in chloroform or alcohol, but insoluble in water and given in doses of 1/250 grain rapidly increased until 1/40 grain is taken daily; (2) *Nativelle's crystalline digitalin*, which is practically identical with digitoxin and hence employed in the same doses; (3) *digitalin Kiliani* or so-called "digitalinum verum," a water-insoluble product administered in doses of 1/30 to 1/10 grain several times daily gradually increased to ⅙ grain; and (4) *digitalin German*, a yellowish-white powder soluble (though incompletely) in water or alcohol and almost insoluble in chloroform. It appears to be practically the only digitalin known to American physicians, probably because it has repeatedly been referred to during the past few years in the American medical press. As regards the dose of this

digitalin, this was formerly stated to be from 1/64 to 1/32 grain several times a day. Some years ago, however, Dr. Henry Beates, Jr., of Philadelphia, made a thorough clinical investigation of German digitalin and arrived at the conclusion that the proper dosage is 1/10 to ½ grain three or four times daily, and latterly he has given as much as 1 grain at a dose. The so-called "digitalin crystallized" is in reality digitin and identical with crystalline digitonin, and thus lacks the specific cardiac action of digitalis. —Mfrs.: *French, Nativelle's* and *German*, E. Merck, Darmstadt; *Kiliani*, C. F. Boehringer & Soehne, Mannheim, Germ.; agts.: Merck & Co., for all.

DIGITALONE is a non-alcoholic liquid, 10 parts representing 1 part of the crude drug, and containing about 0.6 per cent. of chloretone as a preservative. Dose, 5 to 30 minims, subcutaneously or internally. Mfrs.: Parke, Davis & Co., Detroit, Mich.

DIGITALIS BLOMBERG is a concentrated infusion of digitalis.

DIGITALIS WINCKEL *(corvult; digitaferm)* is described as representing "digitalis leaves free from the enzymes and decomposition-products present in ordinary digitalis leaves and due to presence of these enzymes, standardized and stable." Marketed only in ¾-grain tablets.—Mfrs.: Krewel & Co., Cologne, Germ.; agts.: Lehn & Fink, New York.

DIGITALYSATUM is a standardized preparation of fresh digitalis leaves, each gram of which represents a gram of fresh or 0.2 gram of dried digitalis leaves. It is employed in doses of 15 to 20 drops three times daily.—Mfr.: J. Bürger, Wernigerode, Germ.; agts.: Ernst Bischoff & Co., New York.

DIGITOL is a trade name applied to fat-free tincture of digitalis of the same drug strength as the official tincture.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

DIGITONIN *(crystallized digitalin Merck,* or *digitin)* is separated from German digitalin of which it is a component, and occurs as colorless needles which dissolve in about 600 parts of water and 50 parts of 50 per cent. alcohol. It is not absorbed and is without action on the heart when taken by the mouth, and when introduced into the circulation it acts as a cardiac depressant.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

DIGITOXIN, $C_{28}H_{46}O_{10}$, is the most active glucoside of digitalis. It occurs as a white, crystalline powder, almost insoluble in water or ether but soluble in alcohol or chloroform. It has been recommended as a heart tonic of uniform activity owing to its well-defined chemical nature. Dose, 1/250 to 1/60 grain. Incompatible with acids and vegetable infusions. Antidotes: tannin, then emetics; nitroglycerin, morphine, alcoholic stimulants or camphor.—(Nonproprietary.)

DIGITOXIN SOLUBLE.—See *digalen*.

DIGITYL is described as "a titrated extract of digitalis, of uniform action in winter and in summer." It is prepared by exhausting digitalis leaves with steam under high pressure, and appears to be a concentrated infusion of digitalis to which tincture of valerian and spirit of peppermint are added as corrigents. Dose, 20 to 30 drops.—Mfrs.: Chem. Fabrik Tellus, Berlin, Germ.

DIGUAIACOL is the base name latterly applied to *methylene-diguaiacol*, which see.

DIIODO-BETA-NAPHTOL, $C_{10}H_6I_2O$, a yellowish-green powder of faint iodine odor and readily soluble in chloroform, was introduced a few years ago as a substitute for iodoform; it is known also as "naphtol-aristol."

DIIODO-CARBAZOLE, $C_{12}H_6I_2.NH$, results from the action of iodine upon diphenylimide (carbazole). It forms yellow, odorless leaflets, insoluble in water but soluble in ether. It is intended as a substitute for iodoform as a wound antiseptic.

DIIODO-DITHMOL is a chemical snyonym of *aristol*, now official as *thymol iodide*.

DIIODOFORM, chemically *ethylene per-* or *tetraiodide*, or *iodoethylene*, C_2I_4, occurs as yellow needles, odorless when first made but assuming a characteristic odor on exposure to light, soluble in chloroform, slightly so in alcohol or ether, and insoluble in water. It was introduced in France as a substitute for iodoform; it contains 95 per cent. of iodine.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

DIIODO-PARA-PHENOLSULPHONIC ACID.—See *sozoiodole*.

DIJOZOL-MERCURY, DIJOZOL-POTASSIUM and DIJOZOL-SODIUM are analogues of and succedanea for the respective *sozoiodole salts*, marketed by a Berlin firm.

DIMETHYLBENZENE.—See *xylene*.

DIMETHYL-ETHYL-CARBINOL is better known as *amylene hydrate*.

DIMETHYLETHYLCARBINOL-CHLORAL.—See *dormiol*.

DIMETHOXYMETHYLDIHYDROISOQUINOLINE HYDROCHLORIDE.—See *lodal*.

DIMETHYLOXYQUINIZINE is a chemical name for *antipyrin*.

DIMETHYL-XANTHINE is *theobromine*.

DIOMORPHINE *(Brüggelmann's solution)* is a 10-per cent. solution of dionin with 1 per cent. of morphine hydrochloride, which he injects hypodermically during paroxysms of asthma. Dose, 5 to 10 drops. Another diomorphine is described as a coca preparation containing atropine, cocaine, glycerin and an acid and used as an inhalation spray in paroxysms of asthma. Mfr.: Askanische Apotheke, Berlin, Germ.

DIONIN *(ethyl-morphine hydrochloride)*, $C_{17}H_{17}NO(OH)\cdot(OC_2H_6).HCl+H_2O$, is prepared from morphine analogously

to codeine (methyl-morphine). It occurs as a white, bitter, odorless powder, soluble in about 7 parts of water, 1½ alcohol, or 20 syrup, but insoluble in ether or chloroform. It is used chiefly as a substitute for morphine, but also topically as an ocular lymphagogue. Dose, ¼ to 1 grain.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

DIORADIN is defined as "a radio-active preparation of menthol, iodine and radium-barium chloride." It is used subcutaneously in tuberculosis. Dose, 1 Cc. daily or every other day. Marketed in 1 c.c. ampuls.—Mfrs.: Dioradin Co., New York.

DIOXOGEN is a trade name for a stable brand of 12.5-volume hydrogen peroxide solution.—Oakland Chem. Co., New York.

DIOXYBENZENE (-benzol), META-, is *resorcin;* PARA-, *hydroquinone;* and ORTHO-, *pyrocatechin.*

DIOXYDIAMINOARSENOBENZOL.—See *salvarsan.*

DIOXYFLUORAN.—See *fluorescein.*

DIPHTHERIA ANTITOXIN.—See *antitoxin, diphtheria.*

DIPLOSAL is the trade name applied to *salicylo-salicylic acid* or *salicyclic acid ester of salicylic acid,* $OH.C_6H_4.COO.C_6H_4.COOH$. It occurs as colorless, odorless, bitted needles, soluble in alcohol and ether, and insoluble in water. It is put forward as a substitute for salicylic acid, and claimed to be free from untoward effects. Dose, 10 to 15 grains several times daily.—Mfrs.: Boehringer & Soehne, Mannheim, Germ.; agts.: Merck & Co., New York.

DIQUININE CARBONIC ESTER or ETHER is better known as *aristochin.*

DISODIUM METHYLARSENATE, or *sodium methylarsenate,* $OAsCH_3O_2Na_2+5HO$, results from the action of methyl iodide upon sodium arsenate in the presence of an excess of alkali. It forms colorless, efflorescent crystals of alkaline reaction and taste, readily soluble in water, sparingly so in alcohol, and insoluble in ether or oil. It is used as a substitute for the inorganic compounds of arsenic in tuberculosis, skin diseases, etc. Dose, ⅓ to 1 grain. The drug is also known by various trade names such as *arrhenal, neo-arsycodile, arsynal, stenosine,* etc.—(Nonproprietary.)

DISOTRIN is said to represent the active principles of digitalis and strophanthus. It is used as a cardiac stimulant. Marketed as liquid, tablets and sterilized solution for intramuscular or intravenous injection.—Mfrs.: Fauth & Cie, Mannheim, Germ.

DISPERMINE is synonymous with *piperazine.*

DISPNON TABLETS each contain 0.25 gram of diuretin, 0.1 gram of agurin and 0.1 gram of extract of quebracho. They are employed in asthmatic affections. Dose, 2 tablets three or four times daily.—Mfrs.: Apotheke zur Austria, Vienna, Austria.

DITHAN is a brand name for the official *sulphonethylmethane* ("trional").

DITHYMOL DIIODIDE is synonymous with *thymol iodide* (official).

DIURASE Tablets contain alkali carbonates (68.6 per cent.) glycocoll (17.15 per cent.) and terpin hydrate (14.25 per cent.), and are used as a diuretic.—Mfrs.: Chem. Fabrik Ebenau, Munich, Germ.

DIURAZIN is defined as *theobromine acetyl-methylene-disalicylate*. It is brought forward as a diuretic. Dose, 10 to 20 grains . See caution under *formaldehyde*.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

DIURETIN is a brand of *theobromine-sodium and sodium salicylate* or *theobromine and sodium salicylate*, as it is more commonly called; see this.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

DIUROL is *Mulford's compound elixir serenoa*, a liquid diuretic and urinary anticatarrhal, each fluidounce of which contains of buchu, triticum, saw palmetto, hydrangea and pichi each 16 grains, hyoscyamus 2 grains, lithium benzoate 4 grains and potassium bicarbonate 8 grains. Dose, dessertspoonful to tablespoonful three or four times a day. Mfr.: H. K. Mulford Co., Philadelphia, Pa.

DOLOMOL is a trade name of *magnesium stearate* (talcum). It is marketed in various combinations, for example: dolomol-acetanilid; dolomol-ichthyol, etc. The different combinations are all for dermatological and surgical use.—Mfr.: Pulvola Chem. Co., Jersey City, N. J.

DOLONEPHRAN is a dental and surgical anesthetic containing alypin (a local anesthetic), and suprarenin (brand of the vasoconstrictive principle of the suprarenal capsule).—Mfrs.: Chem. Institute, Berlin, Germ.

DORMIOL is chemically *amylene-chloral* or *dimethyl-ethyl-carbinol-chloral*, $CCl_3CHOH.O(CH_3)_2C.C_2H_5$, a colorless, oily liquid, of the specific gravity 1.24, pungent, camphoraceous odor and cooling taste; soluble very slowly but freely in hot water, miscible in all proportions in alcohol, ether, chloroform or fatty oils. It is prescribed as a hypnotic in doses of 8 to 30 minims, in water or capsules. Marketed as 50-per-cent. aqueous solution and as 0.5 gram capsules.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Merck & Co., New York.

DORMONAL is a brand name for *diethylbarbituric acid* (veronal).

DULCINOL is said to be a mixture of mannite with a small quantity of salt, the latter being employed for the purpose of imparting a pleasant tatste. It is marketed as *dulcinol-chocolate*, containing only about 9 per cent. of carbohydrates, the mixture being recommended as a sweetener in place of sugar for diabetic patients.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

DURALCOL is the collective name applied to mull bandages with solid alcohol, solid opodeldoc, 5 per cent.

ichthyol, etc., which are intended to replace inunctions or embrocations. A piece of sufficient size is applied over the affected part, covered with guttapercha tissue or other impervious material and kept in place by a suitable bandage.—Mfrs.: Chem. Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

DURANA is a collective name for gutta percha plaster mulls prepared according to Unna's principles by Drs. Degen and Kuth, of Düren, Germ.

DUROFORM is a formaldehyde preparation exploited as an application for excessive perspiration.—Mfr.: H. Ascher, Mannheim, Germ.

DYMAL is essentially *didymium salicylate*, its chemical formula being $DiLaCe_2(C_6H_4OH.COO)_6$! a fine odorless pinkish-white, insoluble powder, introduced by Prof. Kopp as a siccative wound antiseptic, to be employed pure or as 10-per-cent. dusting-powder or ointment. It is a by-product in the manufacture of incandescent mantles. A *veterinary* grade is also marketed.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

DUOTAL is a trade name for *guaiacol carbonate*, as sold in this country by the Farbenfabriken of Elberfeld Co. and by Schering & Glatz, both of New York.

DUOTONOL is a mixture of calcium and sodium glycerophosphates ("tonols") in equal proportions, a white, granular powder, freely soluble in water. It is used as a nerve tonic. Dose, 5 to 10 grains three times daily.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

DYSPEPTINE, according to Dr. Hepp, is "natural gastric juice of healthy pigs, rendered sterile without addition of foreign substances and preserved in sterilized flasks." Dose, 1 to 3 tablespoonfuls after meals, in dyspepsia.—Mfr.: H. Derenburg, Frankfort-on-M., Germ.

DYSPNON Tablets contain hexamethylenamine, agurin and extract quebracho, and are used chiefly as a prophylacic in angina pectoris.

ECHAFOLTA is defined as a purified, nearly colorless echinacea for surgical use, but it is used also internally as an alterative and systemic antiseptic. Dose, 2 to 5 minims; applied externally in 8 to 25-per-cent. strength.—Mfrs.: Lloyd Bros., Cincinnati, O.

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ECHINACEA ANGUSTIFOLIA is one of the "specific medicines," each fluid ounce of which represents 480 grains of the drug. It is prescribed. as an alterative and antiseptic. Dose, 5 to 60 minims every one to four hours; *applied externally* in 10 to 25 per cent. dilution.—Mfrs.: *Lloyd Bros.*, Cincinnati, O.

ECHINOL is a concentrated fluid extract of fresh echi-

nacea angustifolia, each minim of which is said to represent 10 grains of the drug. It is used as an alterative. Dose, 1 to 2 minims.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

EGMOL is an egg emulsion of olive oil containing 40 per cent. of the latter.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

EHRLICH'S NEW REMEDY FOR SYPHILIS, "606," is described under its trade name, *salvarsan*.

EHRLICH'S 914.—See *neosalvarsan*.

EIGONS are a group of bromine and iodine compounds of albumin. *Iodo*-eigon, also known as "alpha-eigon," occurs as a light-brown, odorless and tatsteless powder, containing 20 per cent. of iodine in chemical combination, and insoluble in water; it is used like iodoform externally. *Pepto-iodo*-eigon, also known as "beta-eigon," is a yellowish, odorless, nearly tasteless powder, containing 15 per cent. of iodine and soluble in water; it is intended as a substitute for the alkali iodides internally and is given in similar doses. *Iodo-eigon-sodium* or sodium iodoalbuminate, is a yellowish, odorless, almost tasteless powder, containing 15 per cent. of iodine, and completely soluble in water, diluted alkalies or acids; it, too, was intended for internal use but has latterly been abandoned in favor of pepto-iodo-eigon. *Brom*-eigon is a compound of bromine with albumin, containing 11 per cent. of bromine; a whitish, almost odorless and tasteless powder, insoluble in water. It was employed chiefly as a dusting-powder in ozena and other catarrhs, and internally as a succedaneum for the alkali bromides; but it has latterly been practically superseded by *pepto-brom*-eigon, a whitish, faintly acid powder of peptone-like odor, soluble in water, and containing 11 per cent. of bromine. Dose, same as potassium bromide. *Eigon soap* contains 5 per cent. of eigon and is employed in eczema, erythema and other skin diseases.—Mfrs.: Chem. Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

EKA-IODOFORM is powdered iodoform sterilized and kept serile with 0.05 per cent. of paraformaldehyde. It is used as a vulnerary.—Mfr.: E. Schering, Berlin, Germ.; Schering & Glatz, New York.

EKTOGAN is a yellowish-white, odorless, tasteless powder, insoluble in water; it is essentially impure zinc peroxide (ZnO_2), giving off O on contact with wound secretions and hence recommended as an antiseptic applied pure or as an ointment. It is also used for preparing H_2O_2. It should be kept in glass-stoppered bottles.—Mfrs.: Kirchhoff & Neirath, Berlin, Germ.

ELAN COTTON is absorbent cotton treated with tincture of capsicum. It is recommended as a rubefacient in place of capsicum plaster.—Mfr.: Geo. Hanning, Hamburg, Germ.

ELBON is the fanciful trade name for the chemical *cinnamoylparaoxyphenylurea*, a new cinnamic acid prepara-

tion used in the treatment of tuberculosis fever. Marketed only in 15-grain tablets.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switz.; agts.: A. Klippstein & Co., New York.

ELECTRARGOL is an isotonic sterile solution of electric colloidal silver, intended for intramuscular injection in infectitious diseases, analogously to collargol. Marketed in 5 and 10 c.c. ampuls. A *surgical* modification is offered in bottles of 50 and 100 c.c., and a *collyrial* preparation in special bottles furnished with a graduated dropping tube.—Mfrs:—Clin Laboratories, Paris, France; agts.: E. Fougera & Co., New York.

ELECTRAUROL, ELECTROPLATINOL and ELECTROPALLADIOL, are isotonic sterile solutions respectively of electric colloidal gold, patinum and palladium, employed by intramuscular injection in infectious diseases, septicemia, etc.—Mfrs.: as preceding.

ELEPTIN is another name for *epileptin*.

ELYTRONES are antiseptic, astringent vaginal suppositories containing boroglyceride, hydrastine, thymoline, zinc sulphocarbolate and acetanilid. Formula B contains ishthyol in addition.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

EMBARIN is described as a 6⅔ per cent. solution of sodium mercurisalicylsulphonate, representing 3 per cent. of metallic mercury and containing also ½ per cent. of acoin as a local anesthetic. It is used hypodermically in syphilis. Dose, per injection, 20 minims. Marketed in ampoules holding 1.3 Cc.—Mfrs.: Heyden Chem. Works, Radebeul, Dresden (Germ.) and New York.

EMBROCINUM MERCURIALE consists of 33⅓ per cent. of mercury and 66⅔ per cent. of a mixture of benzoinated lard and soap. It is employed as a local antisyphilitic.

EMETINE (alkaloid) of the market is not a simple chemical, but the total alkaloid of ipecac, consisting, according to Dr. Paul, of emetine proper and cephaeline. The emetic dose is 1/12 to ⅙ grain; the expectorant, 1/60 to 1/30 grain several times daily. Emetine *hydrochloride* (Paul), $C_{15}H_{21}NO_2.HCl$, is a white powder, soluble in water or alcohol, and sensitive to light. It is used mostly as an expectorant, 1/12 to ⅙ grain per dose.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

EMODIN *(trihydroxymethyl-anthraquinone)*, $C_{14}H_4O_2.CH_3(OH)_3$, is a reddish-yellow powder, soluble in alcohol and alkalies but insoluble in water. It acts as a cathartic in the dose of 1½ grains, best given in pills. It is the purgative principle of rhubarb and many other drugs.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

EMOL is a flesh-colored kind of stearite (a natural magnesium silicate chemically close to talcum) found in England, used as a vulnerary usually in the following combination: emol 7 grams, zinc oxide 3.5 grams, lanolin 15

grams, petrolatum 15 grams, glycerin 10 drops, and solution of lead subacetate 10 drops.

EMOLLIENTINE is not an emollient, but an antiseptic and astringent ointment, consisting of aluminum hydrate, carbolic acid, isarol (ichthyol), lead oxide, corrosive sublimate, zinc oxide, and the base. It is used in eczema, psoriasis, favus, pruritus and other skin diseases.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

EMPYROFORM is a condensation product of birch tar and formaldehyde; a dark grayish-brown, almost odorless powder, insoluble in water but soluble in chlorofrm. It is intended for use in place of tar in skin diseases, in 1 to 20 per cent. ointments, paints or liniments. An empyroform *soap* is also made, 5 per cent. and 10 per cent.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

EMULGATES is the generic name applied to solid emulsions—triturations of oils, oleoresin of male fern, and other fluid drugs, with roborat. The products contain 50 per cent. of roborat and 50 per cent. of the fluid medicament.—Mfr.: Dr. Leopold Sarason, Berlin, Germ.

ENDOMENTOL is a 0.1 per cent. ointment of nicotine salicylate, recommended in scabies, and apparently similar to eudermol.

ENDOTIN *(tuberculinum purum)* is described as "the isolated active principle of Koch's old tuberculin, freed from the worthless impurities which cause toxic reactions." It is supplied in four series each of seven ampoules, constituting a course of about twenty-eight injections.—Mfrs.: Tuberculin Society of St. Petersburg, Russia; agts.: Morgenstern & Co., New York.

ENEMOSE is a nutrient designed especially for colonic alimentation. It is stated to be a sterile liquid containing the nitrogenous substances of beef and wheat and the carbohydrates from wheat, in a non-coagulable and assimilable form. It is free from fat, sugar, or alcohol, and contains 1:1000 of salicylic acid as a preservative. Dose, 1 fluidounce, diluted with 3 fluidounces of water, per injection. Marketed only in ounce vials, which should not be opened until required for use.—Mfrs.: Fairchild Bros. & Foster, New York.

ENESOL is defined as *mercury salicyl-arsinate*, obtained by the action of 1 molecule of methylarsinic acid on 1 molecule of basic mercury salicylate. It occurs as a white powder, soluble in about 25 parts of water, yielding solutions that do not give the usual reactions of arsenic or of mercury. It contains 38.46 per cent. of mercury and 14.4 per cent. of arsenic, and was introduced by Dr. Goignet for hypodermic use in syphilis. Dose, 2 c.c. of a 3-per-cent. solution. *Marketed* in ampoules holding 2 c.c. of this solution.—*Mfrs.: Clin & Co.*, Paris, France; agts.: E. Fougera *& Co., New York.*

ENNAN is a solid cresol soap containing 50 per cent. of

cresol. It is marketed in tablets which are employed in solution as a surgical antiseptic and deodorant. Each tablet contains 0.5 gram of cresol.—Mfr.: F. Kümmel, Melsungen, Germ.

ENTEROPHOR is a plaster bandage prepared at the instigation of Dr. A. Rose, of New York, and used to support the stomach in gastroptosis and as an abdominal supporter during pregnancy.—Mfrs.: P. Beiersdorf & Co., Hamburg; agts.: Lehn & Fink, New York.

ENTEROROSE is a dietetic recommended in diarrheas and gastric diseases. It is said to consist of vegetable albumin impregnated with a meat solution and containing diastase, and occurs as a yellowish powder that mixes well with water.—Mfrs.: Gesellschaft für diät. Präparate, Zurich, Switzerland.

ENTEROSEPTYL is defined as *betatrinaphthyl phosphate*, $PO(C_{10}H_7O)_3$. It is insoluble in dilute acids and gastric juice but soluble in dilute alkalies. It is employed as an internal antiseptic.

ENZYMOL is a "glycerino-aqueous acid extract prepared directly from the mucous membrane of the fresh animal stomach, free from alcohol but containing a trace of thymol and having an acidity equivalent to about 0.3 per cent. of hydrochloric acid loosely bound to proteid. It contains about 25 per cent. of glycerin." Enzymol is a light straw-colored liquid, and is employed as a topical solvent of pathologic tissue, and is said to have no proteolytic action on healthy, living tissue. It is used as an application to purulent and necrotic surfaces. It is made ready for use by the addition of ½ to 2 volumes of water or acidulated water.—Mfrs.: Fairchild Bros. & Foster, New York.

EOSINE-SELENIUM is a red, very toxic powder readily soluble in water and used experimentally so far by Dr. Wassermann only on animals, as a remedy for cancer.

EOSOL is a solution described as containing 50 per cent. of the isomeric cresols—thus apparently analogous to the official *compound solution of cresol*.—Mfrs.: V. E. Perryman & Co., Atlanta, Ga.

EOSOLATES are "a series of sulpho-acid salts of the aliphatic creosote esters," introduced by Dr. G. Wendt, of Berlin, and made by Berliner Capsules-Fabrik, Berlin, Germ. See *calcium eosolate*, *quinine eosolate* and *silver eosolate*.

EOSOTE is the name applied to the so-called *creosote valerate;* a yellowish, oily liquid, of smoky-aromatic taste and odor; insoluble in water, readily soluble in alcohol or ether. It is used chiefly in phthisis, but to a limited extent also as a gastro-intestinal disinfectant. Dose, 3 to 10 minims three times a day, in capsules (0.2 gram), or in milk or alcoholic solution.—Mfrs.: Berliner Capsules-Fabrik, *Berlin, Germ.;* agts.: General Drug Co., New York.

EPHEDRINE HYDROCHLORIDE, $C_{10}H_{15}NO.HCl$, is the *salt of the* alkaloid of ephedra vulgaris; white needles,

readily soluble in water or alcohol, and employed in 10-per-cent. solution as a mydriatic (1 or 2 drops per instillation).—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

EPHENIC ELIXIR is a liquid antipyretic, analgesic and nerve sedative, each fluid dram of which contains acetphenetidin 3½ grains, sodium bicarbonate 1 grain, sodium bromide 1 grain, and caffeine ½ grain. Dose, 1 to 2 teaspoonfuls.—Mfr.: Wm. S. Merrell Chem. Co., Cincinnati, O.

EPICAINE is a solution containing cocaine hydrochloride and epinine, marketed also as *tabloid* ophthalmic epicaine.—Mfrs.: Burroughs, Wellcome & Co., London (Eng.) and New York.

EPICARIN is the trade name applied to *beta-oxynaphtyl-ortho-oxy-meta-toluylic acid*, ($C_{19}H_{14}O_4$). The drug forms yellowish needles soluble in alcohol, ether, petrolatum or olive oil; insoluble in water, slightly soluble in chloroform. It is employed in parasitic skin diseases (scabies, herpes tonsurans, etc.), chiefly in ointments (15 to 20 per cent.), 10 per cent. solutions made with sodium carbonate, and in 10 to 15 per cent. alcoholic solutions. Solutions in other oils than olive, or in petrolatum and lanolin, can be made with the addition of a little ether. *Veterinary* epicarin is an impure grade intended for veterinary practice; a reddish-brown powder, used the same way as the medicinal quality.—Mfrs.: Farbenfabriken of Elberfeld (Germ.) and New York.

EPINEPHRINE *(dihydroxymethylaminoethylbenzene)*, $C_6H_3(OH)_2(CHOH.CH_2NHCH_3)$, is a substance with feeble basic properties, obtained from the suprarenal gland of the sheep or other animal, or synthetically. It is easily soluble in acids, forming salts, of which the hydrochloride is readily soluble in water. Its incompatibles are the same as those of alkaloids. Epinephrine causes constriction of the blood vessels with consequent high rise of blood pressure; a stimulation of the vagus center with slowing of the heart; and a direct stimulation and toning of the heart similarly to digitalis. The effect of a single dose is very fleeting. The effects are seen on local application and intravenous and intramuscular injection. Dilute watery solutions of its salts rapidly lose their strength, the deterioration being accompanied by a reddish or brownish discoloration. It is used in the form of a solution of its hydrochloride, regularly marketed in 1:1000 strength. Dose, 5 to 20 minims of the latter solution every two or three hours; hypodermically, 3 to 15 minims. Locally the hydrochloride is used in solution varying in strength from 1:15000 to 1:1000 for ordinary applications; in oily solution for sprays; in ointment for application to mucous membranes. The article is marketed *under the trade name adrenalin*; the U. S. Circuit *Court of appeals has sustained the patents on the latter article, which would appear to mean that adnephrin, adrin,*

paranephrin, suprarenaline, suprarenine, etc., can no longer be marketed in this country.

EPININE is a synthetic substance *(dihydroxyphenylethylmethylamine)* closely allied in chemical constitution to, and having the properties of, the suprarenal active principle. Marketed as *vaporole* epinine in 1-c.c. ampoules, as *tabloid* ophthalmic epinine, and as a 1-per-cent. *solution* in 10-c.c. and 25-c.c. vials.—Mfrs.: Burroughs, Wellcome & Co., London (Eng.) and New York.

EPIRENAN is a German brand of 1:1000 solution of *epinephrine.*—Mfr.: Dr. Heinr. Byk, Berlin, Germ.

EPISAN (Berensdorf) is an antiepileptic "containing zinc oxide, potassium bromide, borax, magnesium oxide, and small quantities of aluminum hydroxide and potassium salts."

ERGAMINE is another trade name for *beta-imido-azolylethylamine,* described under *imido.*

EREPTON is a nutrient "prepared by allowing pepsin, hydrochloric acid, trypsin and erepsin to act upon the best fat- and tendon-free meat; the end product is then desiccated in an appropriate manner." It occurs as a brownish, hygroscopic powder which is easily soluble in water and has an odor and taste suggestive of meat extract. It is used mainly during disease, by rectal injection, 20 grams at a dose.—Agts.: V. Koechl & Co., New York.

ERGONE is a liquid preparation of ergot for internal or hypodermic use; 1 c.c. is said to represent 1 gram of ergot.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

ERGOTIN BLOMBERG appears to be a concentrated infusion of fresh ergot, from which the inorganic acids have been removed and glycerin added as a preservative.

ERGOTINA STYPTICA (Egger) is, according to L. Hajos, a fluid extract of ergot containing 5 per cent. of stypticin and recommended in disturbed cerebral circulation and in neuroses accompanying or following menstrual disturbances. Dose, 10 to 15 drops.

ERGOTININE CITRATE is a salt of a crystalline alkaloid derived from ergot. It is a grayish-white amorphous powder, easily soluble in water. It is intended for hypodermic use in place of the ordinary ergot preparations; given per os it has but little activity. It is employed mainly in the treatment of uterine hemorrhage and congestive headaches. Dose, 1/200 to 1/100 grain per injection. Marketed as tablets, each containing 1/200 grain.—Mfrs.: Burroughs, Wellcome & Co., London and New York.

ERGOTINOL is a hydrolyzed, dialyzed fluid extract of ergot, 1 c.c. of which is said to equal 0.5 gram of extract of ergot Ph. G. V. Dose, 3 to 10 minims.—Mfr.: Dr. A. Vosswinkel, Berlin, Germ.

ERGOTOLE is a liquid preparation of ergot 2½ times as strong as the U. S. P. fluid extract and used chiefly

hypodermically. Dose, 5 to 20 minims.—Mfrs.: Sharp & Dohme, Baltimore, Md.

ERGOTOXINE CITRATE and HYDROCHLORIDE are now regarded as identical with *cornutine citrate* and *hydrochloride*, respectively. They are prescribed as hemostatics and oxytocics in obstetrical practice; also in spermatorrhea. See cornutine citrate.—(Nonproprietary.)

ERICIN is stated to be identical with *mesotan*, which see.

ERNUTIN is "a preparation containing the active therapeutic principles of ergot, namely, the alkaloid ergotoxine and the organic base para-hydroxyphenylethylamine, in definite amount, and free from the paralytic and depressor principles associated with many ergot preparations. It occurs as a clear, pellucid liquid, pleasant and palatable for mouth administration, whilst its use hypodermically produces no irritation." It is used chiefly for the arrest of post-partum hemorrhage. Dose, by intramuscular injection (for rapid results), 5 to 10 minims, repeated in 20 minutes if required; by mouth, 30 to 60 minims every three hours after expulsion of the placenta. "Vaporole ernutin" is an ampoule of ernutin containing 10 minims.—Mfrs.: Burroughs, Wellcome & Co., London and New York.

EROSAN is a syrup of potassium sulphoguaiacolate, containing ethyl-morphine hydrochloride 0.3 gram, potassium sulphoguaiacolate 10 grams, 30 grams distilled water, syrup 105 grams, and fluidextract orange-peel 5 grams.

ERSEOL (Prunier) is described as being *quinoline sulphosalicylate*, $C_6H_3.SO_3.H.OH.COOH:C_9H_7+H_2O$. It forms white, well-defined silky crystalline tufts, of acid reaction, and slightly soluble in cold, but very easily in warm, water, and also in slightly acidulated liquids. It is intended for use in rheumatism, neuralgia, and grippe, and it is marketed abroad in wafers each containing 0.25 gram. Dose, 2 to 4 wafers; for children, 1 wafer per day, at mealtime.—Agts.: E. Fougera & Co., New York.

ERVASIN is *acetylparacresotinic acid*, of the formula $C_6H_3.CH_3.O.CH_2CO.COOH$, and occurs as white, fine needles melting at 141° to 142° C., readily soluble in alcohol, ether or chloroform and sparingly soluble in water. It is used as an antipyretic, antineuralgic and antirheumatic, like aspirin. Dose, 7½ to 15 grains. Marketed also as 0.5-gram tablets.—Mfrs.: Goedecke & Co., Leipsic, Germ.; agts.: Schering & Glatz, New York.

ERYTHROL TETRANITRATE *(tetranitrol; nitrated erythrol)*, $C_4H_6(NO_3)_4$, forms colorless leaflets, easily soluble in alcohol but insoluble in water, and exploiding on percussion; hence marketed only as chocolate tablets (1½ grain), 1 or 2 of which every 4 to 6 hours constitute the dose. It is a vaso-dilator and antispasmodic like nitroglycerin, but its action is slower and more lasting. It is thus used in angina pectoris, heart disease, etc.—Mfr.: E. *Merck, Darmstadt*, Germ.; agts.: Merck & Co., New York.

ERYTHROPHLEINE HYDROCHLORIDE is the salt of the alkaloid of erythrophlœum guineense (sassy bark); a yellowish-white hygroscopic powder, soluble in water or alcohol, and employed as a local anesthetic (chiefly in eye diseases) in 1:2000 to 1:400 solutions and as a heart tonic (1/30 to 1/15 grain).—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ESANOFELE is an antimalarial in pill form, consisting of quinine hydrochloride, iron citrate, arsenous acid, and a vegetable extract.—Mfrs.: Bisleri & Co., Milan, Italy.

ESCALIN is a remedy used by Dr. Klemperer in place of the usual bismuth subnitrate for arresting gastro-intestinal hemorrhages and for cicatrizing gastric ulcers. It is a trituration of 2 parts of finely powdered aluminum with 1 part of glycerin, and is marketed as 0.25-gram pastilles.—Mfrs.: Ver. Chem. Werke, Charlottenburg, Germ.; agts.: V. Koechl & Co., New York.

ESCORCIN *(æscorcin)*, $C_9H_6O_4$, is derived from esculetin, a cleavage product of esculin (from horse chestnut bark). It occurs as whitish, water-soluble crystals, and was recommended by Dr. Fröhlich for diagnosing corneal defects —1 or 2 drops of a 10 to 20 per cent. aqueous solution instilled into the eye stains the lesions red.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ESCULIN *(polychrome, esculinic acid, bicolorin, enallachrome)* is a glucoside obtained from horse-chestnut bark *(æsculus hippocastanum)*, occurring as white, bitter crystals, soluble in water, alcohol or chloroform. Its solutions, particularly in the presence of alkali, show a strong bluish fluorescence. It has been used for years as an antiperiodic in doses of 5 to 15 grains, but has more recently been suggested as an aid to the treatment of lupus by the Finsen rays. Five minims of a 5 per cent. aqueous solution made with the aid of 2 or 3 per cent. of sodium carbonate are injected beneath the skin of the part about to bt treated.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ESERIDINE, $C_{15}H_{22}N_2O_3$, is an alkaloid of calabar bean coexisting with eserine and calabarine. Its action is the same as that of eserine, but it is only one-sixth as powerful. It has been used in the form of its tartrate by hypodermic injection in diseases of the stomach of cattle. Dose (veterinary), 5 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ESERINE-PILOCARPINE is a simultaneously crystallized mixture of eserine salicylate and pilocarpine hydrochloride (1:2), occurring as a white powder, soluble in water and alcohol, and used as an anodyne and cathartic in colic of horses (3 to 6 grains per dose by injection).—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., *New York.*

ESTER-DARMASAN is a soft soap containing 10 per *cent. of free salicylic* acid besides 10 per cent. of salicylic

acid esters of phenyl and benzoyl radicles. It is used topically in rheumatic affections, 5 to 10 grams per inunction.—Mfr.: Dr. Reiss, Berlin N., Germ.

ESTON and FORMESTON are two aluminum compounds, the former being *basic aluminum acetate*, $Al(OH)(C_2H_3O_2)_2+aq$; the latter, *basic aluminum acetoformate*, $Al(OH)(HCO_2)(C_2H_3O_2)+aq$. They occur as fine, white powders, sparingly and slowly soluble in water, and permanent in the air and in light. They have a faintly acidulous odor. Under the influence of water or aqueous fluids (such as blood, pus, etc.) they gradually decompose into their components and manifest the astringent and antiseptic action characterizing solution of aluminum acetate, combined with the drying effect of a porous powder. They are employed chiefly as dusting-powders (generally of 10 to 50 per cent. strength, seldom undiluted). *Peru-eston* and *peru-formeston* have been marketed. These latter occur as dry powders containing 10 per cent. of balsam of peru with 40 per cent. of eston or formeston, respectively, and 50 per cent. of talc. See *caution* under *formaldehyde*. —Mfr.: Dr. A. Friedländer, Berlin, Germ.

ESTORAL is defined as *boric acid menthol ester* obtained by the action of boron trichloride on menthol. The formula $B(C_{10}H_{19})_3$ has been assigned to it, and it occurs as a white, tasteless powder havin ga faint odor of menthol. It is practically insoluble in water and alcohol but dissolves readily in chloroform and ether. It is offered as a remedy for use as a snuff in acute and chronic nasal catarrhs, and is supplied as a 50-per-cent. lactose trituration under the name of *estorin*.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

ETHACOL *(æthacol)* is a trade name for *monoethyl ether of pyrocatechin*, better known as, and described herein under, *guethol*.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

ETHER, GLYCERINO-SALICYLIC, is referred to under *glycosal*.

ETHER, HYDRIODIC, is the well-known *ethyl iodide*.

ETHER, HYDROBROMIC, is *ethyl bromide*.

ETHER, METHYL-DIIODOSALICYLIC, is better known as *sanoform*.

ETHER, SALICYLIC, is described under *ethyl salicylate*.

ETHOMORPHINE is an English trade name for *ethylmorphine hydrochloride*.

ETHOXYCAFFEINE *(æthoxycaffeine)*, $C_6H_2.OC_2H_5N_4O_2$, is obtained by boiling monobrom-caffeine with an excess of alcoholic potassa solution, and forms white crystals, soluble in ether and hot alcohol. It is used in migraine and neuralgias, 4 grains several times daily in wafers.—*Mfr.: E. Merck*, Darmstadt, Germ.; agts.: Merck & Co., *New York*.

ETHYL AMINOBENZOATE.—See *anesthesin.*

ETHYLAMINOACETPYROCATECHIN HYDROCHLORIDE.—See *homorenon hydrochloride.*

ETHYL BROMIDE *(monobromethane; hydrobromic ether)*, C_2H_5Br, is a colorless or nearly colorless, inflammable, volatile liquid, having a burning taste and chloroform-like odor, sp. gr. about 1.453 to 1.457; soluble in alcohol, chloroform or ether. It is employed as an inhalation anesthetic in minor surgery, and as a nerve sedative in epilepsy, hysteria, etc. Dose, by inhalation, 150 to 300 minims; by mouth, 5 to 10 drops on sugar or in capsules. On exposure it darkens from liberation of bromine; it should not be used when discolored.—(Nonproprietary.)

ETHYL CARBANILATE.—See *euphorine.*

ETHYL CHLORIDE *(monochlor-ethane)*, C_2H_5Cl, is now official in the U. S. P., hence fully described in the latter work and other books of reference. It is also marketed under a number of trade names *(kelene, anodynone, antidolorin, ethylol,* etc.).

ETHYL DIBROMCINNAMATE.—See *zebromal.*

ETHYL-MORPHINE HYDROCHLORIDE, $C_{17}H_{17}NO(OC_2H_5).HCl+H_2O$, occurs as a white, crystalline, odorless, slightly bitter powder. It is soluble in about 7 parts of water and in 2 parts of alcohol, insoluble in ether and chloroform. It is used mainly as a succedaneum for morphine, but also as a lymphagogue in corneal affections, iritis, etc. It is also known by the brand name *dionin.* Dose, ¼ to 1 grain. Externally it is applied in 10 to 20 per cent. solutions or triturations.—(Nonproprietary.)

ETHYL-MORPHINE HYDRIODIDE *(iodide)* is analogous to ethyl-morphine hydrochloride in action and uses, but, it is claimed, causes less pain and leaves less visible and smaller cicatrices in the cornea. It is used mainly in corneal ulcers and opacities and in chronic trachoma.

ETHYL-NARCEINE HYDROCHLORIDE, also known in France by the trade name *narcyl*, has the formula $C_{29}H_{31}NO_9.HCl$. It occurs as silky, flossy prisms, readily soluble in alcohol or chloroform and soluble in about 120 parts of water; slightly soluble in ether. Salts of benzoic, cinnamic and citric acids increase its aqueous solubility. It is used as a cough sedative and antispasmodic in phthisis, asthma, whooping-cough, etc. Dose, ½ to 1 grain; children proportionately.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ETHYL SALICYLATE *(salicylic ether)*, $C_9H_{10}O_3$, is a transparent, colorless, volatile, oily liquid having a pleasant characteristic odor and taste. Its specific gravity at 20° C. is about 1.184. It is readily soluble in alcohol, insoluble in water. Ethyl salicylate has the same action as methyl salicylate and the salicylates in general. Dose, *5 to 15 minims* three or four times a day, in capsules. *(See also* sal-ethyl.)—Mfr.; E. Merck, Darmstadt, and *others.*

ETHYLENE BROMIDE *(dibrom-ethane)*, $CH_2Br.CH_2Br$, occurs as a slightly brownish, heavy liquid (sp. gr. 2.189), of chloroform odor, and soluble in alcohol. It is used as a nerve sedative in doses of 1 to 2 minims two or three times daily, in emulsion or capsules. It should be kept protected against light; and it should not be confounded with the relatively non-poisonous ethyl bromide.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ETHYLENEDIAMINE *(diamino-ethane)*, $C_2H_4N_2$, is a clear, colorless, thick liquid, when fresh having a strongly alkaline reaction, an ammoniacal odor and a caustic taste. It is freely miscible with water but not with ether, and dissolves albumin readily; hence its use as a solvent of false membranes. It is marketed in 10-per-cent. solution as werr as in 25-per-cent. solution (kresamine).—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

ETHYLENEDIAMINE-MERCURY SULPHATE is described under *sublamine*.

ETHYLENEDIAMINE-SILVER NITRATE.—See *argentamine*.

ETHYLENE-IMINE is a synonym of *piperazine*.

ETHYLENE PERIODIDE *(tetraiodide)*.—See *diiodoform*.

ETHYLOL is a trade name of *ethyl chloride*.—Mfr.: H. Goetz, Frankfort-on-M., Germ.

EUAROL is a solution of thymol iodide in cottonseed oil, intended for local use in place of tincture of iodine.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

EUCAINE, BETA-EUCAINE, or EUCAINE HYDROCHLORIDE B, is the *hydrochloride of trimethylbenzoxypiperidin*, having the formula $C_5H_7N(CH_3)_3(C_6H_5COO).HCl$. It occurs as a white, neutral powder, soluble in about 30 parts of cold water or alcohol. It is used like cocaine as a local anesthetic, and is claimed to be less toxic, and sterilizable by boiling without fear of decomposition. It does not dilate the pupil nor contract the blood vessels. It is applied mostly as 2 to 5 per cent. solutions, which are conveniently prepared in a test-tube with boiling water. It is also marketed as 1½ and 5 grain tablets. Eucaine *acetate* is soluble in 3 parts of water, and the *lactate* in 5.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

EUCALDIN is a local anodyne and an internal antiseptic, antispasmodic and antimalarial, prepared by the fractional distillation of oils of eucalyptus globulus and pinus sylvestris. Dose, 10 to 20 minims.—Mfrs.: Norwich Pharm. Co., Norwich, N. Y.

EUCA-MUL is an emulsion of oil of eucalyptus in glycerin and *honey*, said to contain in each fluidounce 15 *minims of the oil*.—Mfrs.: E. G. Binz Co., Los Angeles, Cal.

EUCAPREN (eucarenalin) is a 1-per-cent. solution of

beta-eucaine lactate int 1:5000 solution of suprarenalin. It is employed as a local anesthetic and vaso-constrictor.—Mfrs.: Armour & Co., Chicago, Ill.

EUCERIN is defined by Unna as the water-absorbing constituent of wool-fat, the oxycholesterin group. It increases the water-absorbing power of ointment bases to which it is added. *Eucerin anhydrous* is a mixture of 5 parts of eucerin and 95 parts of petrolatum. Mixed with an equal part of water it yields *eucerin hydrous*. The latter is said to keep indefinitely and to be miscible in the cold with other ointments or pastes.—Mfrs.: P. Beiersdorf & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

EUCHININ.—See *cuquinine*.

EUCODINE (*"eukodin," codeine methylbromide, codeine brommethylate*), $C_{19}H_{21}NO_3(BrCH_3)$, occurs as colorless crystals melting at 261° C. and readily soluble in water. It is offered as a less toxic succedaneum for codeine in all its uses. Dose, 3 to 6 grains per day, in solution.—Mfrs.: Riedel & Co., Berlin and New York.

EUDERMOL is the name applied to *nicotine salicylate*, which forms colorless crystals soluble in water and alcohol and of a faint empyreumatic odor. It is used as a 0.1 per cent. ointment in scabies, and as a 1 per cent. ointment in veterinary practice (sarcoptes mange).—Mfr.: Dr. L. C. Marquadt, Beuel, Germ.

EUDOXINE is the bismuth salt of nosophen (tetraiodophenolphtalein), *bismuth nosophenate*, occurring as a reddish-brown, odorless, tasteless powder, insoluble in water, and employed as an intestinal antiseptic and astringent in doses (adult) of 5 to 15 grains 3 to 5 times daily.—Mfrs.: Chem. Fabrik. "Rhenania," Aix-la-Chapelle, Germ.; agts.: Stallman Co., New York.

EUDRENIN B is a local anesthetic solution marketed in 1-c.c. ampoules each containing eucaine 0.0025 gram and adrenalin 0.0001 gram, in physiological salt solution.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

EUFERROL is a preparation of gelatinous consistence marketed in capsules the contents of which are said to represent 0.012 gram of iron in ferrous combination and 0.00006 gram of arsenous acid, thus corresponding in composition to a tablespoonful of the stronger Levico water. It is said to be odorless, tasteless and permanent, and it has been introduced as a convenient substitute for Levico water which is put forward as an alterative and hematinic.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

EUFORMOL is a liquid antiseptic containing as the active ingredients oil of eucalyptus, oil of wintergreen, thymol, menthol, boric acid, fluid extract of wild indigo, and formaldehyde solution. It is used diluted with two to ten parts of water.—Mfrs.: Parke, Davis & Co., Detroit, *Mich.*

EUGALLOL is defined chemically as *pyrogallol monoacetate*. It is marketed only in 66-per-cent. solution in

acetone, which is a dark-yellow, syrupy liquid soluble in water and acetone, and intended as a succedaneum for pyrogallic acid in psoriasis, etc.—Mfrs.: Knoll & Co., Ludwigshafen (Germ.) and New York.

EUGOFORM is partly *acetylized methylene-diguaiacol;* a grayish-white, nearly odorless powder, insoluble in water, and used as a dusting-powder or 5 to 10 per cent. ointment on wounds, burns, etc. *Soluble* euguform is a 50 per cent. solution of euguform in acetone, and is applied pure or as paste or ointment.—Mfrs.: Chem. Fabrik. Güstrow, Germ.; agts.: Lehn & Fink, New York.

EUKIRIN is a Japanese preparation; an organic phosphorus compound, similar to phytin. It is prepared from rye, and occurs as a white powder which contains 20 per cent. of phosphorus.

EULATIN is defined as *dimethylphenylpyrazolone (antipyrin) amidobromobenzoate*, and occurs as a white, almost odorless powder having a slightly acidulous taste. It is used mainly in whooping-cough. Dose, 2 to 8 grains every two to four hours.—Mfr.: Chem. Institute Dr. D. Oestreicher, Berlin, Germ.

EULECTAN is an acid bismuth salt of guaiacol containing an excess of guaiacol. It occurs as a dark-brown powder of faint aromatic odor, and is used internally as well as topically in ointment form and as dusting-powder, as an astringent cicatrizant. Dose, 4 to 15 grains.—Mfr.: Pharmacy in Lübbenau, Germ.

EULIMEN, recommended to replace oil of turpentine for certain uses in medicine, is synthetic *limonene*.

EUMENOL is the trade name applied to the fluid extract of the root of tang-kui, kau-kui, man-mu, or schanki, a Chinese araliacea. It is employed as an emmenagogue and uterine sedative, particularly in nervous amenorrhea and dysmenorrhea. Dose, 1 fluid dram three times daily in sweetened water.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

EUMORPHOL is an antimorphine serum introduced by Dr. Hirschlaff for use in the treatment of morphine poisoning and morphinomania.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

EUMYDRIN is the trade name applied to *atropine-methylnitrate* or *methylatropine nitrate*, of the formula $C_{18}H_{26}O_6N_2$. It occurs as a white, crystalline, odorless, permanent powder, readily soluble in water or alcohol but sparingly soluble in ether or chloroform. Eumydrin is a mydriatic and antihydrotic like atropine sulphate. It is claimed that it dilates the pupil more quickly than atropine and that the dilation is of shorter duration, being intermediate in these respects between atropine and homatropine. It is stated to be particularly useful in night-sweats, whooping-cough and enuresis. Dose, as an *antihydrotic, etc., 1/60 to 1/24* grain. Externally, as a *mydriatic, it is used in solutions* about one-tenth stronger than

the usual atropine solutions.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

EUNATROL is a trade name for *sodium oleate*. It is marketed as powder and as chocolate-coated pills (0.25 gram), 4 of which are taken two to four daily.—Mfrs.: Zimmer & Co., Frankfort-on-M.; agts.: C. Bischoff & Co., Inc., New York.

EUPHENOL is defined as "a combination of the antiseptic principles of thyme, Japanese peppermint, eucalyptus and baptisia tinctoria, with benzoboracic acid, salicylic acid and oil of gaultheria"; evidently analogous to the official *antiseptic solution*.—Mfrs.: Fraser & Co., New York.

EUPHORINE *(phenyl-urethane; phenyl-ethylurethane; phenyl-ethyl carbamate; ethyl carbanilate)*, $CO(NH.C_6H_4)(OC_2H_5)$, forms a white, faintly odorous powder, of clove taste, soluble in alcohol or ether, almost insoluble in water. It is prescribed as an analgesic and antiseptic, externally and internally. Dose, 8 to 15 grains. Incompatible on trituration with camphor, monobromated camphor, carbolic acid, chloral hydrate, menthol, resorcin, salol, thymol, and urethane. Euphorine should not be confounded with europhen.—Mfrs.: Heyden Chem. Works, Radebeul, (Germ.) and New York.

EUPHTHALMIN is "the hydrochloride of the mandelic acid derivative of beta-eucaine"; a white powder readily soluble in water or alcohol. It is used as a mydriatic in 2 to 10 per cent. solutions, which are sterilizable; its effects pass away in about six hours.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

EUPNEIN Elixir is said to contain in each dose (2 fluid drams) heroin 1/24 grain, terpin hydrate 2 grains and creosote 5 grains, in a menstruum containing 30 per cent. of alcohol with glycerin and aromatic essential oils. It is used in coughs and fermentative dyspepsia.—Mfrs.: Schieffelin & Co., New York.

EUPORPHIN is the trade name applied to *apomorphine bromomethylate* or *methylbromide*, obtained by methylating morphine with dimethyl sulphate, and treating the resulting methylsulphate with a saturated solution of potassium bromide. It occurs as colorless needles or scales, easily soluble in water or alcohol. It is intended to supersede apomorphine hydrochloride, especially as an expectorant. Its solutions are claimed to be more permanent to air and light, though also sensitive thereto. Dose, 1/24 to 1/12 grain several times daily. Marketed also as 1/12 grain tablets.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

EUQUININE is chemically *quinine carbonic ether* or *quinine ethylcarbonate*, $C_{22}H_{28}O_4N_2$, and occurs as light, *white, fleecy*, practically tasteless conglomerations of *needles; readily* soluble in alcohol, ether, or chloroform; *sparingly soluble* in water. Its solutions are bitter. It is

recommended as a complete substitute for ordinary quinine, less apt to produce cinchonism and other disturbances. Dose, same as of quinine sulphate, in plain powder or as tablets.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: Merck & Co., New York.

EURESOL is *resorcin monoacetate*, $C_8H_8O_3$; a yellow, honey-like, oily liquid, readily soluble in acetone. It is employed in place of resorcin in skin diseases in 5 to 20 per cent. ointments or acetone-solutions.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.
Co., Ludwigshafen-on-Rh. (Germ.) and New York. *Euresol pro capillis* is perfumed euresol, intended for use in hair tonics and scalp lotions.

EUROFORM PASTE is a dental anodyne and wound packing consisting of orthoform 1 dram, europhen 1½ drams, petronol 2½ drams, and white petrolatum 2½ drams. Formula of Dr. J. P. Buckley.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

EUROPHEN is defined as *diisobutyl-cresol iodide* or *iodo-diisobutyl-orthocresol*, and occurs as a bulky, yellow powder of faint saffron odor, and containing 28 per cent. of iodine. Soluble in alcohol, ether, chloroform and fixed oils; insoluble in water. It is employed mainly as a wound antiseptic like iodoform, as dry powder, ointment, etc. It has been occasionally used by injection in syphilis, ½ to 1½ grains once daily in oil, internally, 3 to 5 grains per dose. It should not be dispensed with starch, metallic oxides (zinc and mercury in particular), and mercurials, as decomposition is liable to ensue; and it should be protected from light, heat and moisture.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

EUSAPYL is an aqueous solution of chlor-metacresol in an equal quantity of potassium ricinoleate employed as a disinfectant.—Mfrs.: Meister, Lucius & Brüning Hoechst-on-M., (Germ.); agts.: Victor Koechl & Co., New York.

EUSCOPOL is a trade name for scopolamine hydrobromide as made by Riedel & Co., Berlin (Germ.) and New York.

EUSEMINE is a sterile solution in hermetically sealed vials of cocaine hydrochloride 0.0075 gram and adrenalin hydrochloride 0.00005 gram, dissolved in 1 c.c. of physiologic salt solution.—Mfrs.: Hugo Rosenberg, Berlin, Germ.; agts.: L. A. Seltzer, Detroit, Mich.

EUSOMA is a reddish-brown liquid of faint odor and pungent taste, said to contain in each fluid dram the principles of 15 grains of echinacea angustifolia, 2 grains of thuja occidentalis, and 4 grains of baptisia tinctoria. It is used as an antiseptic and alterative externally and internally. Dose, a teaspoonful three to six times daily.—Mfrs.: Eusoma Pharm. Co., Cincinnati, O.

EUSTENIN is the double-salt theobromine-sodium and *sodium iodide* of the composition $C_7H_7N_4O_2Na.NaI$. It con-

tains about 51 per cent. of theobromine, and occurs as a white hygroscopic powder that is readily soluble in water. It is used in arteriosclerosis, angina pectoris and aortic aneurism.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

EUTHYMOL is similar to euformol, but contains no formaldehyde.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

EUZONE is an alkaline, liquid antiseptic consisting of eucalyptol, thymol, menthol, sodium bicarbonate, sodium benzoate, oil of wintergreen, glycerin and vehicle; a pale-orange fluid, of agreeable odor and taste. It is employed topically pure or diluted with from one to four parts of water; internally, a teaspoonful every hour or two.—Mfrs.: Girard Co., Philadelphia, Pa.

EXALGIN is *methyl-acetanilid* or *methyl-phenyl-acetamid*, $C_6H_5N.CH_3.COCH_3$, white crystals, soluble in alcohol, sparingly soluble in water. It is prescribed chiefly as an anti-neuralgic, in doses of 2to 5 grains. Maximum dose, 8 grains.—Mfrs.: McKesson & Robbins, New York.

EXODYNE is said to be a mixture consisting of 90 parts of acetanilid, 5 parts of sodium bicarbonate and 5 parts of sodium salicylate. It is used as an antipyretic and analgesic. Dose, 4 to 8 grains.

EXTRACT RED BONE-MARROW is a brownish-red liquid of an agreeable aromatic taste; it contains about 2 per cent. of proteids, about 0.1 per cent. of lecithin and about 85 per cent. of glycerin. It is used in simple and pernicious anemias. Dose, 1 to 2 fluid drams three times daily, in water, milk or wine.—Mfrs.: Armour & Co., Chicago, Ill.

EXTRACTS.—A few extracts that have been introduced in recent years will be here briefly mentioned. *Arenaria*—from arenaria rubra; used in bladder troubles, 30 grains every three hours in sweetened water. *Aspidium spinulosum* (common wood-fern)—an ethereal extract employed as a tapeworm remedy in doses of 1 dram after fasting and followed in a few hours by a cathartic. *Dichondra brevifolia*, said to have proved a good remedy in diphtheria. One part of the extract is dissolved in three parts of glycerin, and a tuft of cotton is impregnated with this solution and gently brushed over the pseudo-membrane every two to six hours, according to the severity of the case. According to Dr. Aramian, this extract destroys the diphtheria bacilli and may be employed in conjunction with antitoxin. *Erodium*—from erodium cicutarium, used as a uterine hemostatic; dose, 2 to 5 grains every two or three hours, as pills or solution. *Galega officinalis* (goat's-rue)—a galactagogue in doses of 8 to 30 grains two to four times daily in syrup, mixture or pastilles. *Glaucium luteum*, fluid—½ to 1 teaspoonful three times a *day in diabetes. Periploca* (climbing dog's-bane), fluid—*used as heart tonic*; dose, 5 to 10 drops. *Psidium pyriferum (guava; djamboe)*, fluid—employed as an intestinal

astringent and hemostatic, 15 to 30 minims in water every two hours. *Sorbus acuparia*, fluid—prescribed as a laxative; dose, 30 to 240 minims two hours after a meal. *Suprarenal capsule*, hemostatic—brown particles soluble in water with turbidity, and employed as vasoconstrictor topically (10 to 30 per cent. solutions), hypodermically, or intravenously; dose, 1 to 2 drams of 1 per cent. solution.

EXTRADIGIN is "a digitalis preparation containing all the active principles of digitalis leaves." It is marketed in 0.1 Gm. tablets each of which is equivalent to the same quantity of digitalis.

F

FAGULINE is said to be essentially a solution of 15 parts of paraguaiacolsulphonate of potassium, 1 part of potassium sulphate and 48 parts of sugar, in 36 parts of 36.5 per cent. alcohol. It is offered as an antitubercular and anticatarrhal. Dose, a teaspoonful three or four times daily.—Mfrs.: Verweij & Co., Tiel, Holland.

FANGO or "Mineral Liniment" is the mud of the hot springs at Battaglia, Italy. It is applied as it is or as baths in rheumatism and female complaints.—Mfrs.: Fango-Versand von Fränkel, Berlin, Germany; agts.: Fango Institute, New York.

FEBRISOL is an analgesic and antipyretic, of which "every 5 grains represent phenacetine 2 grains, salol ½ grain, citrated caffeine ½ grain, acetanilid, 1¼ grains, tartaric acid and sodium bicarbonate q.s." Dose, 5 to 10 grains. *Liquid* febrisol contains in each fluid dram these same ingredients and quantities.—Mfrs.: Tilden Co., New Lebanon, N. Y.

FEMAGEN is a uterine tonic and sedative each fluid ounce of which represents black haw 24 grains, cramp bark 16 grains, black cohosh 16 grains, green horse-nettle 16 grains, cascara 16 grains, and strontium bromide 16 grains. Dose, 1 to 2 fluid drams.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

FENCHYVAL is the trade name adopted for the isovalerianic ester of fennel oil, or *fenchyl isovalerianate*. The article occurs as a nearly tasteless liquid of faint valerian-like odor, its specific gravity at 15° C. is 0.945. It is employed as a nerve sedative in hysteria, vertigo, etc.—Mfr.: Anthony Deppe Sons, Hamburg-Billwärder, Germany.

FENTHOZONE is an English disinfectant consisting essentially of acetic acid 26 parts, carbolic acid 2 parts, menthol, camphor, and oil of eucalyptus of each 1 part, and 0.5 part each of lavender and vervain oils.

FER- OR FERRO-ARSYCODILE.—See *arsycodile*.

FERFORMASAL is *iron dimethylenesalicylate*, used in *anemia of gouty* or rheumatic subjects. Dose, 5 to 10 *grains, in capsules.* See caution under formaldehyde.—

Mfrs.: Organic Chem. Co., Fort Washington, Pa.

FERMANG is a solution of iron and manganese peptonate, containing 0.6 per cent. of iron and 0.2 per cent. of manganese.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

FERMENTIN consists, according to Dr. Dreuw, of the protoplasmic and nuclear constituents of yeast. It occurs as a yellowish-white, pulverulent mass having a slight odor of yeast and readily miscible with starch, talcum, zinc oxide, and ointment bases. It contains 7 per cent. of protein nitrogen, 2 per cent. of nuclein nitrogen and 3 per cent of fat. It is used internally as well as externally as an alterative and antiseptic in chronic skin diseases.—Mfrs.: Goedicke & Co., Berlin, Germ.; agts.: Schering & Glatz, New York.

FERMENLACTYL is the name applied to tablets of the lactic-acid producing bacillus bulgaricus and streptococcus lebinis. The tablets are used for conveniently preparing buttermilk, as well as an intestinal antizymotic and bactericide. Dose, 3 to 6 tablets shortly after meals.—Mfrs.: Pasteur Vaccine Co., Paris, France; agts.: E. Fougera & Co., New York.

FEROSIN is a ferrated syrup of guaiacol.—Mfrs.: Fritz-Petzold & Süss, Vienna, Austria.

FER-PROTYLIN.—See under *protylin.*

FERRALBOL is, according to Rapp, a chemical compound of iron and albumin, containing 3 per cent. of iron, to which is added 1 per cent. of lecithin. It is proposed as a hematinic. Dose, 7½ grains three times daily, in tablets (so marketed).—Mfr.: Wilh. Natterer, Munich, Germ.

FERRALBUMOSE is a Dutch meat peptone and iron preparation; a powder, containing 10 per cent. of iron.

FERRAMAT is the terse name applied to Dr. Stockmann's ferruginous pills, each containing 2 grains of iron besides bitter and aromatic substances.—Mfrs.: Dr. Stockmann's Pharm. Laboratory, Reichenbach, Germ.

FERRATIN *(sodium ferri-albuminate)* contains about 6 per cent. of iron and forms a brown, almost odorless, tasteless powder. It is employed as a hematinic. Dose, 4 to 8 grains.—Mfrs.: C. F. Boehringer & Soehne, Mannheim, Germ.; agts.: Merck & Co., New York.

FERRATOGEN is an iron nucleinate obtained by growing yeast in a ferruginous medium; a yellowish-gray, palatable powder, insoluble in water, and recommended by Cloëtte as a readily assimilable iron compound. Dose, 5 to 10 grains.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switzerland; agts.: C. Bischoff & Co., Inc., New York.

FERRATOSE *(liquor ferratini)* is a solution of ferratin, *containing 3* per cent. of iron. Dose, 3 or 4 tablespoonfuls *per day.—Mfrs.:* C. F. Boehringer & Soehne, Mannheim, *Germ.; agts.:* Merck & Co., New York.

FERRICODYLE is a trade name for iron cacodylate;

see this.

FERRICHTOL is a compound of iron and ichthyol, *iron sulphoichthyolate* or *ichthyol-iron*, occurring as a brownish-black, nearly odorless and tasteless powder, insoluble in the usual solvents as well as in diluted acids and alkalies, and containing 2½ per cent. of iron. It is prescribed in anemia and chlorosis. Dose, 5 to 20 grains, in tablets (marketed as such).—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

FERRIC IODOBEHENATE.—See *ferro-sajodin*.

FERRIPYRINE *(ferric-chloride-antipyrin)* is a compound containing about 64 per cent. of antipyrin and 36 per cent. of ferric chloride. It occurs as an orange red powder, soluble in 5 parts of water, also soluble in alcohol but insoluble in ether. It is used as a hematinic, styptic and astringent—internally, 5 to 15 grains, in solution or as powder; externally in 1 to 20 per cent. solutions or pure. It is incompatible with alkalies, their carbonates and bicarbonates.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

FERROGLIDINE is an organic combination of iron with glidine (wheat protein). It is marketed as tablets each representing ¾ grain of iron in a ferrous state. It is used as a hematinic. Dose, 1 to 2 tablets three times a day.—Mfr.: Dr. V. Klopfer, Dresden-Leubnitz, Germ.; agts.: Menley & James, New York.

FERROGLOBULIN is a protein-like substance, obtained from rye. It occurs as a brown powder which contains 0.6 per cent. of iron and small amounts of phosphorus and manganese. It is insoluble in water, partly soluble in sodium chloride solution and easily soluble in caustic alkalies, forming with the latter a transparent liquid. It is used as a hematinic tonic.

FERROMANGAN is a solution of iron peptonate with manganese containing 0.6 per cent. of iron, 0.1 per cent. of manganese and 1.5 per cent. of peptone. It is used as a hematinic, like the N. F. solution. Dose, 1 to 4 fluid drams.—Mfrs.: Chem. Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

FERROMANNIN is a liquid preparation described as a "saccharo-mannite" of iron, "containing 1 grain of iron expressed as FeO" to the tablespoonful.—Mfrs.: Ferromannin Chem. Co., New York.

FERROPYRINE is identical with *ferripyrine*.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

FERRO-SAJODIN is *basic ferric iodobehenate* having the approximate formula $C_{44}H_{85}I_2Fe$ and containing 5.7 per cent. of iron and about 25 per cent. of iodine. It occurs as a reddish-brown powder soluble in chloroform or ether but insoluble in water. Its action is that of iron and iodine combined. Marketed only as 8-grain tablets. Dose, 1 or 2 tablets three *times daily*.—Mfrs.: Farbenfabriken of Elberfeld, *Elberfeld* (Germ.) and New York.

FERRO-SOMATOSE, also designated as *iron-somatose* and *iron-albumose*, is a light-brown, almost tasteless, odorless powder, readily soluble in water, and said to contain the "nutritious elements of meat" with two per cent. of iron organically combined. Dose, 3 or 4 teaspoonfuls per day.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

FERROSTYPIN is a double salt of hexamethylenetetramine hydrochloride and ferric chloride, of the formula $(CH_2)_6H_4.HCl.FeCl_3$. It occurs in yellowish-brown crystals, containing 15 per cent. of iron and readily soluble in water. It is used as a styptic and antiseptic, chiefly in dental practice. See caution under *formaldehyde*.—Mfr.: Dr. C. L. Marquadt, Beuel, Germ.

FERROTONOL is the new name applied to *iron-tonol*, or *iron glycerophosphate*.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

FERROVOSE is an iron-and-albumin combination prepared by Lefèvre and Hildt. Hydrated ferrous oxide is dissolved in egg-albumin in the absence of air. Sulphur compounds are removed by treatment with alkali, and the iron compounds precipitated by dilute acids. The iron is combined in the ferrous condition. It is employed as a chalybeate tonic.

FERROZONE is *ferrous vanadate*, introduced by Dr. B. Rohden and marketed as 3-grain sugar-coated pills. It is used as an alterative tonic. Dose, 1 or 2 pills three times a day.—Mfr.: "Pharmako," Lippspringe, Germ.

FESTOFORM is a solidified formaldehyde obtained from formaldehyde solution by means of soap. It occurs as a white mass that dissolves in water with slight opalescence and is used as tablets or pastilles for various disinfecting purposes. *Festoform smelling-salt* is used in affections of the nose, and *festoform toilet-cream* is employed for cosmetic purposes.—Mfr.: Dr. Hirschberg, Berlin, Germ.

FETRON is an ointment base introduced by Prof. Liebreich, in physical properties being between lanolin and petrolatum and consists of 3 per cent. of stearic acid anilid and 97 per cent. of petrolatum.—Chem. Fabrik "Hansa," Hemelingen, Germ.

FIBROLYSIN is a sterilized 15 per cent. solution of a double-salt of *thiosinamine* (2 mols.) and *sodium salicylate* (1 mol.) introduced by F. Mendel as a succedaneum for thiosinamine hypodermically. As is known, thiosinamine is but slightly soluble in water, so that alcoholic solutions have to be employed and these are quite painful. The new compound occurs as a white powder easily soluble in water. Its solutions, however, are readily decomposed by air, and hence the medicament is marketed in ampoules containing 2.3 c.c. of the solution (equal to 0.2 *gram of thiosinamine*). It is used hypodermically or by *intramuscular injection* or intravenously, in lupus, chronic *glandular swellings*, to remove scars, etc. Dose, 1 ampoule

daily or every second or third day.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

FILMARON *(filmaronic acid)*, $C_{37}H_{54}O_{16}$, is an active anthelmintic constituent of oleoresin male fern. It appears as a brownish-yellow powder, insoluble in water, slightly soluble in alcohol, but freely soluble in the remaining usual solvents. It has a strong tendency to cake together to form a resinous mass difficult to reduce to powder and dispense; hence it is not marketed in substance but as a 10-per-cent. castor oil solution known as *filmaron oil*. Dose of latter as an anthelmintic, 2½ fluid drams followed by a purgative.—Mfrs.: C. F. Boehringer & Soehne, Mannheim, Germ.; agts.: Merck & Co., New York.

FILMOGEN, also known as *acetone-collodion*, *collosin*, and *liquor adhæsivus*, is a solution of pyroxylin in acetone and a fatty oil intended for use as a protective as well as a vehicle for dermic remedies.

FLOROZONE is described by the makers as "a solution of gases of great germicidal power which when liberated by spraying or sprinkling, is of the same specific gravity as air. The air thus becomes saturated, creating a 'florozone atmosphere' which permeates every nook, corner and crevice with a disinfectant powerful enough to destroy germs and bacteria of the highest resistance."—Mfrs.: Bellevue Chem. Co., Brooklyn, N. Y.

FLUIDEXTRACT CANNABIS AMERICANA has been launched on this market and has been credited with equal therapeutic value as fluidextract cannabis indica grown in India. The plant is cannabis sativa grown in America. Action, dose, etc., are the same as of the official fluidextract of cannabis indica.—(Nonproprietary.)

FLUORESCEIN *(resorcinolphthalein; dioxyfluoran)* is an aniline dye occurring as an orange-red powder, insoluble in water, ether or chloroform, but soluble in alkaline solutions, forming salts of the alkalies. A solution consisting of 2 grams of fluorescein, 3 grams of sodium bicarbonate and enough distilled water to make 100 c.c. is used for diagnosticating corneal lesions and detecting minute foreign bodies imbedded in the cornea. This solution will not stain the normal cornea, but ulcers will become green and foreign bodies will appear surrounded by a green ring; loss of substance in the conjunctiva is indicated by a yellow hue.—Mfrs.: Anilin makers in general.

FLUOROFORMOL *(fluoroform water; fluoryl)* is a saturated (2.8 per cent.) aqueous solution of fluoroform gas $CHFl_3$; a nearly tasteless and odorless, non-irritating liquid, used mainly in tuberculosis, whooping-cough and pneumonia. Dose, tablespoonful four times a day; in whooping-cough, ½ to 1 teaspoonful hourly.—Mfrs.: Valentiner & Schwarz, Leipsic-Plagwitz, Germ.; agts.: C. Bischoff & Co., Inc., New York.

FLUORRHEUMIN, also designated as anti-rheumatin or

antirheumin, is an ointment consisting of fluorphenetol 1 per cent., difluordiphenyl 4 per cent., petrolatum 10 per cent. and lanolin 85 per cent. It is employed topically in rheumatism, lumbago, etc., 5 grains being rubbed in several times a day.—Mfrs.: Valentiner & Schwarz, Leipsic-Plagwitz, Germ.; agts.: C. Bischoff & Co., Inc., New York.

FLUOROL is *sodium fluoride*.

FLUORYL.—See *fluoroformol*.

FOMITIN is a cold-prepared fluidextract of the fungi fomes cinnamomeus and fomes igniarius; a reddish-brown alkaline liquid of fungoid odor and slightly bitter taste, used in diseases of the bladder, dysmenorrhea, hemorrhoids, etc. Dose, 1 to 4 tablespoonfuls.—Mfr.: M. Hellwig, Berlin NO, Germ.

FORBIL is a laxative chocolate in bars containing phenolphthalein as the active ingredient.

FORMALDEHYDE Solution is now official, hence fully described in the U. S. Pharmacopœia and other easily accessible works of reference. The proposed medicinal use of it in any form opens an extremely grave question as to a certain ultimate effect. It has been suggested that the deadly and sight-destroying power of wood alcohol which is now well known, is due to its decomposition in the system into formic acid, this acid being the destructive agent. If this be so, may not formaldehyde be expected to yield the same destructive acid, it being an intermediate product in the change of wood alcohol to formic acid; in other words, by further oxidizing wood alcohol (which is methyl oxide, more commonly known as methyl alcohol) we get formic aldehyde (oxymethylene) and by still further oxidation this is converted to formic acid; so that formaldehyde may afford a starting point for the development of the acid, without going back to wood alcohol. A most frightful feature in wood alcohol poisoning is destruction of sight, which has so often occurred; and this feature should naturally cause the utmost care as to the introduction into the system of anything which may yield the same results; or even the slightest impairment of vision. Slight changes in that respect which might be caused by medicine might easily be overlooked or ascribed to some other cause. In view of the facts and possibilities here presented, it has been thought necessary to add to descriptions of articles which may yield formaldehyde in the system by decomposition ("splitting up"), a caution referring to this paragraph, and in these have been included those with the methylene group, and formates from which formic acid might be set free; such cautions may possibly have been in some cases overlooked so the reader will do well to be on the alert in regard to the subject here as *well as* in other literature. Applications, it must be *remembered*, may introduce a medicament into the system *as well as* usual internal administration.

FORMALDEHYDE-GELATIN.—See glutol.

FORMALDEHYDE, PARA-.—See *para-formaldehyde.*

FORMALDEHYDE-TANNIN.—See *tannoform* and *formatan.*

FORMALIN is a brand name for *solution formaldehyde* as marketed by Schering & Glatz, New York.

FORMALIN-TANNIN is the same as *tannoform, formotan* and other condensation products of formaldehyde and tannic acid.

FORMALOIN *(aloin-formal)*, $CH_2C_{17}H_{16}O_7$, occurs as a yellow, amorphous, tasteless powder, which is insoluble in water and sparingly soluble in alcohol. It is intended as a non-bitter succedaneum for aloin in about twice the dose of the latter.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

FORMALYPTOL is a colorless liquid antiseptic containing 5 per cent. of formaldehyde (gas), 0.075 per cent. of thymol, 0.3 per cent. of eucalyptol, 0.075 per cent. each of camphor and oil gaultheria, normal tincture baptisia 0.625 per cent., benzoic acid 0.8 per cent., and boric acid 2 per cent.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

FORMAMINE is another of the numerous trade names for *hexamethylenamine.* Formamine *tablets* each contain hexamethylenamine 2 grains, sodium salicylate natural 5 grains, and colchicine 1/200 grain. They are used in gout and rheumatism.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

FORMAMINT TABLETS contain ⅙ grain of formaldehyde and some menthol. They have been brought out as a mouth and throat antiseptic lozenge.—Mfrs.: Bauer & Co., Berlin SW, Germ.; agts.: A. Wulfing & Co., New York.

FORMAMOL is the name by which *hexamethylenamine anhydromethylenecitrate,* better known in this country by the trade name *helmitol,* is known in British pharmacy.

FORMAN *(chloro-methyl-menthyl ether)* is a chlorinated methyl ester of menthol of the formula $C_{10}H_{19}.C.CH_2.Cl$, and occurs as a colorless, limpid, levogyrate, oily liquid, decomposed by water into formaldehyde, menthol and hydrochloric acid. Brought forward as an inhalant in catarrhal affections of the respiratory tract. See caution under *formaldehyde.*—Mfrs.: Lingner's Chem. Laboratorium, Dresden A, Germ.; agts.: Lehn & Fink, New York.

FORMANILID *(phenyl-formamide)*, $C_6H_5NH.CHO$, is a reaction product of anilin and formic acid; colorless or yellow crystals, soluble in water, alcohol, glycerin, or oils. It is brought forward as an anesthetic and analgesic, and for insufflation in catarrh. Dose, 2 to 4 grains. See caution under *formaldehyde.*—Mfrs.: E. Merck and others.

FORMASAL is described as a condensation product of formaldehyde and salicylic acid, or *methylene-disalicylic acid.* It is used chiefly in the form of its salts, alum-formasal, bisformasal, etc.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

FORMASEPTOL is a liquid antiseptic containing ⅓ *per cent. official* formaldehyde solution, sodium borate, ben-

zoic acid, and small quantities of thymol, eucalyptol, menthol and oil of wintergreen.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

FORMATAN is a condensation product of formaldehyde and tannin, apparently identical with the older *tannoform*. It is used chiefly as an intestinal astringent and antiseptic, in doses of 5 to 15 grains several times daily, but it is serviceable also to arrest excessive perspiration. Marketed also in tablets. See caution under *formaldehyde*.—Mfrs.: H. K. Wampole Co., Philadelphia, Pa.

FORMATONE *(solution of pentaformates)* is a liquid preparation said to contain in each fluidounce lithium formate 2 grains, strontium formate 14 grains, magnesium formate 8 grains, sodium formate 16 grains and quinine formate 2 grains. It should be noted that formadehyde may be liberated from formates, and this would involve a serious risk which is mentioned under formaldehyde.—Mfrs.: J. Wyeth & Bro., Philadelphia, Pa.

FORMESTON.—See under *eston*.

FORMIC ALDEHYDE.—See *formaldehyde*.

FORMICIN *(formaldehyde-acetamide)* is a very hygroscopic substance, and hence marketed only as concentrated solution—a colorless, syrupy liquid of the specific gravity 1.140 to 1.180, having a faint peculiar odor and acidulous-bitter taste, and miscible in all proportions with water, alcohol or chloroform, readily soluble in glycerin, sparingly soluble in ether, decomposed by acids and alkalies readily and by water gradually, formaldehyde being liberated. It is used as a surgical disinfectant and deodorant in 2 per cent. solution. See caution under *formaldehyde*.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Lehn & Fink, New York.

FORMIDINE is described as *methylene-iodo-disalicylic acid*, $C_{15}H_{10}O_2I_6$, an iodized derivative of salicylic acid and formaldehyde. It is employed as an external antiseptic.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

FORMIN is one of the many brand names for *hexamethylenetetramine*, now official as hexamethylenamine.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

FORMOBOR is, according to the statements of the manufacturer, an aqueous solution containing 4 per cent. of formaldehyde and 1½ per cent. of borax. It is recommended as a disinfectant of surgical instruments, etc.

FORMOCRESOL is a mixture of equal volumes of trikresol and solution formaldehyde, and is used as a dental disinfectant in the treatment of putrescent pulps and uncomplicated abscesses.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

FORMOFORIN is a foot powder stated to consist of *formaldehyde solution*, actanilid, boroglyceride, sodium *borobenzoate*, eucalyptol, thymol, menthol, wintergreen oil, al-

cohol aand extract of witchhazel.—Mfrs.: H. K. Wampole Co., Philadelphia, Pa.

FORMOPHEN TABLETS probably consist, according to Dr. Zernik, of a condensation product of formaldehyde and phenol. They are used as a disinfectant by volatization.

FORMOPYRINE *(methylene-diantipyrin)* is obtained by heating 5 parts of antipyrin with 4 parts of formaldehyde solution for several hours at 120° C. It forms white crystals soluble in alcohol and insoluble in water. It acts as an antipyretic and antiseptic. See caution under *formaldehyde.*

FORMULSIN is a soap solution of formaldehyde, offered as an antiseptic.

FORMUROL is the trade name of what is defined as *hexamethylenetetramine-sodium citrate,* $C_6H_7O_7Na.C_7H_{12}N_4$. According to an analysis made in the laboratory of the American Medical Association, the article consists essentially and represents a mixture of approximately 35.37 per cent. of hexamethylenamine and 63,36 per cent. of sodium citrate. It occurs as a white, water-soluble powder, and is used as a urinary disinfectant and antilithic. Dose, 15 grains. See caution as to methylene compounds under formaldehyde.—Mfrs.: Chem. Fabrik, Falkenberg, Germ.; agts.: Cellarius Co., San Francisco, Cal.

FORMYLPHENETIDIN *(formphenetidin, para-oxyethylformanilid)* $C_6H_4OC_2H_5.NH.HCO$, is made by heating paraphenetidin hydrochloride with anhydrous sodium formate and formic acid. It occurs as colorless, shining needles or leaflets that are readily soluble in alcohol or hot water. It is used as an antispasmodic. Dose, 3 to 6 grains. See caution under *formaldehyde.*

FORMYL TRIBROMIDE is *bromoform* (official).

FORMYSOL is a liquid potash soap marketed in two strengths representing respectively 4 per cent. and 10 per cent. of formaldehyde gas and occurring as a greenish-yellow liquid of pleasant odor and miscible with alcohol or water in all proportions. It is offered as a disinfectant for the hands, surgical instruments, etc.—Mfrs.: Theo. Hahn & Cie, Schwedt,-on-O., Germ.

FORMYSOLS are, according to Schlieben, faintly yellow, liquid glycerin-potash soaps, containing 25 per cent. of formalin (equal to 10 per cent. of formaldehyde gas) and 10 per cent. of formalin (representing 4 per cent. of formaldehyde), respectively. They are used for disinfecting the hands and surgical instruments, as well as on wounds and in parasitic skin diseases. See caution under *formaldehyde.*

FORTOSSAN is a nutritive for small children consisting of the soluble vegetable phosphorus preparation known as phytin and milk sugar. It is marketed as 2.5 gram tablets.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switzerland; *agts.:* T. D. Webb, New York.

FOSSILIN is a brand of petrolatum.

FRIGUSINE is *diiodoricinic acid*, a dark-brown liquid used as a protective dressing for wounds, upon which it forms a kind of varnish from which iodine is gradually and constantly liberated.

FRUCTOID is a laxative fruit-jelly containing phenolphthalein.

FUCOL is a succedaneum for cod liver oil prepared from iodine-containing algæ and vegetable oils; an olive-green, oily liquid, of a faint taste like that of roasted coffee. It is intended to serve also as a vehicle for medicaments ordinarily exhibited with cod liver oil (phosphorus, creosote, ferrous iodide, etc.).—Mfrs.: Deutsche Fucol-Werke, Bremen, Germ.

FULMARGIN is defined as "a stable solution of colloidal silver prepared by electric vaporization." It is marketed in ampuls containing 5 c.c., and is intended for intravenous and intramuscular use in septicemia, pyemia, etc., like collargol.—Mfr.: Hugo Rosenberg, Berlin-Charlottenburg, Germany.

FURUNCULIN is a dried beer-yeast employed internally in general furunculosis, certain eczemas, dyspepsia, etc. Dose, 10 to 30 grains three times daily.—Mfrs.: La Zyma, St. Ludwig, Germ.

G

GACAMPHOL—.See *guacamphol.*

GADIOL is an aromatized cod-liver oil.—Mfrs.: Vial & Uhlmann, Frankfort-on-M., Germ.

GADUOL is defined as an *alcoholic extract of cod-liver oil.* It occurs as a brown, oily liquid, of a bitter-acrid taste, containing the alterative principles of the oil; specific gravity 0.93 to 0.94. One part represents 4 parts of oil. It is used in place of cod-liver oil. Dose, 5 to 20 minims in capsules or as a so-called "wine of cod-liver oil."—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

GALECTENZYME is a pure culture of the true Bulgarian bacillus, in tablet form, and intended for therapeutic use to arrest intestinal fermentative and putrefactive processes.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

GALEGOL is prepared by extracting finely ground goat's rue (galega officinalis) in vacuo, evaporating to dryness at a low temperature and granulating with milk sugar. It occurs as small, brown granules having an agreeable taste and readily soluble in water, coffee, tea, etc. It is offered as a galactagogue. Dose, a teaspoonful several times daily. —Mfr.: Dr. K. Fragner, Prague, Austria.

GALLANOL *(gallanilid, gallic acid anilid,* or *gallinol),* $C_6H_5.NH.CO.C_6H_2(OH)_3+2H_2O$, is obtained by heating gallic *acid with anilin* at 150° C., and occurs as colorless or *slightly brownish* crystals soluble in alcohol, chloroform

and ether, and used as a substitute for pyrogallol in skin diseases (5 to 20 per cent. ointments, solutions or dusting powders).—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

GALLICIN or *gallic acid methyl ester*, $C_6H_2(OH)_3COO.CH_3$, forms a grayish-white crystalline powder soluble in alcohol or ether, and is employed as a dusting-powder in eye diseases (chiefly conjunctivitis).—Mfrs.: Sandoz & Co., Basle, Switzerland.

GALLOBROMOL or *dibromogallic acid*, $C_6Br_2(OH)_3CO-OH$, is made by rubbing together 1 part of gallic acid and 2½ parts of bromine and recrystallizing from water, and forms a light-brown powder soluble in water, alcohol or ether. It is used internally as a nerve sedative and externally as an antiseptic astringent in 1 to 4 per cent. solution (in gonorrhea and cystitis), and as dusting-powder or paste (in skin diseases). Dose, 10 to 30 grains, generally in solution with an acid syrup.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

GALLOGEN *(ellagic acid, benzoaric acid)*, $C_{14}H_6O_8$, occurs as a yellow, odorless, tasteless powder, insoluble in all acid or neutral media, but soluble in alkalies. It is prescribed as an intestinal astringent. Dose, 15 grains; children 5 to 8 grains. Supplied also as 3-grain chocolate tablets. A veterinary grade is also marketed.—Mfr.: Dr. Ad. Heinemann, Worms-on-Rh., Germ.; agts.: C. Bischoff & Co., Inc., New York.

GARANTOSE is one of the many trade names for *benzoylsulphonic imide* (better known as *saccharin*).—Mfrs.: Heyden Chem. Works, New York.

GASTERIN is a gastric juice obtained by Fremont from dogs.

GASTRIN is the name for a hormone preparation intended for use in digestive insufficiency. It should not be confounded with the preceding article.

GASTROGEN is "a neutralizing digestive, indicated in various forms of indigestion," marketed only in tablet form.—Mfrs.: Bristol-Meyers Co., Brooklyn, N. Y.

GASTROSAN is a trade name applied to *bismuth disalicylate*, a white, odorless, sweetish powder, insoluble in alcohol. Dose, 8 to 15 grains.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

GASTROZYMASE is said to be the dried natural gastric juice of the pig, and intended for use in gastric affections dependent upon deficiency of gastric juice.

GAULTHERINE is the "sodium salt of methyl salicylate," silky needles, of wintergreen odor and freely soluble in water, and used as antiseptic (1 to 2 per cent. solutions) and antizymotic. Dose, 1 to 5 grains well triturated with powdered liquorice or milk sugar.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

GAYATIN *is a syrup* of ammonium guaiacol-sulphonate, *analogous in its uses to* sirolin.

GELANTHUM is a water-soluble vehicle for dermics, a colorless paste consisting of equal parts of gelatin and tragacanth, together with sufficient of a mixture of equal parts of glycerin and rose water, besides a little thymol (as a preservative).—Mfr.: W. Mielck, Hamburg, Germ.; agts.: Merck & Co., New York.

GELATOSE-SILVER is better known as *albargin;* see this.

GELINA DIGITALIS are bean-shaped masses of gelatin hardened with formaldehyde, each representing ¾ grain of digitalis in the form of a concentrated infusion. They are not acted upon by the gastric juice and dissolve only on reaching the alkaline intestinal fluids. *Gelina strophanthi* are also on the market.

GELONIDA are enteric capsules containing various medications. *Gelonida antineuralgica* contain 0.01 Gm. of codeine phosphate, 0.25 Gm. of phenacetine and 0.25 Gm. of acetylsalicylic acid (aspirin), and are used as an antineuralgic and antirheumatic. *Gelonida antipyretica* contain antipyrin and caffeine. *Gelonida stomachica* contain 0.005 Gm. of belladonna extract, 0.15 Gm. of bismuth subnitrate and 0.15 Gm. of calcined magnesia.—Mfrs.: Goedicke & Co., Berlin, Germ.: agts.: Schering & Glatz, New York.

GELSEMIN and GELSEMININE are two preparations from gelsemium, concerning which confusion exists among physicians as well as pharmacists. Gelsemin is a *resinoid,* occurring as a brownish-yellow powder. Gelseminine, $C_{22}H_{28}N_2O_2$, is an *alkaloid* and forms white crystals. Both articles are soluble in alcohol but insoluble in water; and their physiologic action is the same in kind but vastly different in degree. Gelsemin (resinoid) is given in doses of ⅛ to 1 or even 2 grains. The single dose of gelseminine (alkaloid) is 1/120 to 1/30 grain, and its maximum daily dose ⅙ grain; as antidotal treatment emetics, atropine or strophanthin is used, besides artificial respiration.—(Nonproprietary.)

GENOFORM is a condensation product of acetyl-salicylic acid and formaldehyde intended for use in gout and rheumatism, neuralgia, etc. It occurs as a white powder of slightly acid taste, sparingly soluble in cold water, but freely soluble in alcohol, ether and hot water. It is split up in the intestines into salicylic acid, acetic acid, and formaldehyde. Dose, 6 to 8 grains every two or three hours, as powders usually. See caution under *formaldehyde.*—Marketed by C. Bischoff & Co., Inc., New York.

GENITONE is described as a uterine tonic and sedative, each fluid dram of which represents golden seal 5 grains, black haw 8 grains, pulsatilla 2 grains, passion flower 4 grains, and senecio aureus 5 grains, in aromatic cordial.—*Mfrs.:* Wm. S. Merrell Chem. Co., Cincinnati, O.

GENTIANIN is the crude bitter principle (*gentianic acid or gentisin)* of gentian; a dark-brown extract solu-

ble in alcohol and given in doses of 4 to 15 grains thrice daily as a tonic.—(Nonproprietary.)

GENTIOPICRIN is a bitter glucoside obtained from gentian root. It is readily soluble in water or diluted alcohol, and has been introduced by Dr. G. Tanret as an antiperiodic. Dose, 15 to 30 grains.

GEOFORM, which has several trade aliases, is described under its chemical designation, *methylene-diguaiacol.*

GEOSOTE is *guaiacol valerianate* or *valeryl-guaiacol*, $C_6H_4(OCH_3)O.CO.C_4H_9$; a yellowish, oily liquid of smoky odor and burning taste, soluble in alcohol or ether. It is used as an antitubercular and an intestinal disinfectant. Dose, 3 to 10 minims, gradually increased to 20 minims, in capsules or milk, three times daily.Marketed also as 3-minim capsules.—Mfrs.: Berliner Capsules-Fabrik, Berlin, Germ.; agts.: General Drug Co., New York.

GEOTALOSE is defined as a compound of creosotal with a muco-colloidal base, and occurs as a grayish-green, odorless and tasteless mass becoming liquid when heated. It is used as an intestinal antiseptic, chiefly in diarrhea of infants. Dose, a teaspoonful hourly.

GERMICIDAL DISCS contain mercury biniodide ⅜ grain, and sodium bicarbonate 16 grains, colored blue. One dissolved in 4 ounces of warm water makes a 1:5000 solution of mercuric iodide, which is claimed to be equal in germicidal power to a 1:1000 solution of corrosive sublimate but not to coagulate albumen or attack instruments.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

GITALIN is a new glucoside of digitalis leaves, isolated by Dr. Kraft. It occurs as a white, amorphous powder soluble in about 600 parts of water and very freely soluble in chloroform. Nothing is stated thus far as regards its physiologic action.

GIVASAN PASTE is a tooth-paste containing *hexamethylanamine* as its therapeutically active ingredient. It is also intended for use as a prophylactic of mercurial gingivitis during treatment of syphilis.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

GLACIAL is the fanciful name applied to a mixture of methyl chloride and ethyl chloride, employed as a local anesthetic.

GLANDULEN is prepared from the bronchial glands of sheep; a yellowish powder, which is marketed as 0.25 gram tablets, each of which represents 0.05 gram of fresh gland and which are employed in phthisis. Dose, 1 to 3 tablets three times daily.—Mfrs.: Hofmann Nachf., Meerane, Germ.; agts.: Lehn & Fink, New York.

GLIDINE *(wheat protein)* is defined as "a pure vegetable albumin derived wholly from the core of a variety of wheat peculiarly rich in protein and containing in the fully dried state albumin 95.69 per cent., lecithin 0.87 per cent., carbohydrates 2.72 per cent., and ash 0.72 per cent." It occurs as a yellowish, fine, odorless and practically

tasteless powder, which swells but does not dissolve in water. It is employed as a nutrient and reconstructive. Dose, 2 to 3 dessertspoonfuls daily, stirred into broths, chocolate, milk, etc.; it should not be boiled with the foods. It forms the base of various combinations: *arsen*-glidine *(arsan); bromo*-glidine; *ferro*-glidine; *iodo*-glidine; *mercuro*-glidine *(luesan).*—Mfr.: Dr. V. Klopfer, Dresden-Leubnitz, Germ.; agts.: Menley & James, New York.

GLOBULARIN, $C_{12}H_{20}O_8$, is a glucoside of globularia alypum and vulgaris. It occurs as a brownish-yellow powder soluble in alcohol. It is used in rheumatism, gout, glycosuria, etc. Dose, ½ to 1½ grains.—(Nonproprietary.)

GLUSIDE is the British Pharmacopœial name for *saccharin.*

GLUTANNIN is a compound of tannic acid and 2 per cent. of vegetable albumin (from wheat), marketed in the form of powder and as 5-grain tablets, and employed as an intestinal astringent. Dose, 10 to 15 grains three to five times daily.—Mfr.: Dr. Israel Roos, Frankfort-on-M., Germ.

GLUTANNOL is a compound of vegetable fibrin and tannic acid, prescribed as an intestinal astringent without action in the stomach (owing to its insolubility in water and acid liquids). Dose, 5 to 15 grains, in powders or suspension.—Mfrs.: Dr. R. Hundhausen, Hamm, Germ.

GLUTOFORM is synonymous with *glutol.*

GLUTOID CAPSULES are gelatin capsules hardened with formaldehyde and supplied in three degrees of resistance to gastric juice—weak, medium and strong. They are intended to be used for drugs that are to act only in the intestine. See caution under *formaldehyde.*—Mfr.: C. Fr. Hausmann, St. Galen, Switzerland.

GLUTOL *(glutoform, formaldehyde-gelatin)* occurs as a white to yellowish, odorless powder, which is used pure as a wound antiseptic, liberating formaldehyde on contact with the wound secretions. See caution under *formaldehyde).*—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

GLYBOLID is a paste consisting of 2 parts of glycerin and 1 part each of boric acid and acetanilid, employed topically on pustules, abscesses, and the like.

GLYCASINE is a surgical lubricant consisting essentially of alkali stearates and glycerin (60 per cent.), of soft-ointment consistency and neutral.—Mfrs.: P. Beiersdorf & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

GLYCERIN SALICYLATE.—See *glycosal.*

GLYCERINOPHOSPHATES or GLYCEROPHOSPHATES.—See under *calcium, iron, lithium, magnesium, potassium, quinine,* etc., glycerinophosphates.

GLYCERODINE (glycerite hydriodic acid) is said to contain in each 100 c.c. 1.54 grams of absolute hydriodic acid (equivalent to 7 grains in a fluid ounce). It is used

as an alterative and resolvent. Dose, 1 fluid dram.—Mfrs.: H. K. Wampole Co., Philadelphia, Pa.

GLYCOCOLL-PHENETIDINE HYDROCHLORIDE is better known as *phenocoll hydrochloride*, which see.

GLYCOCREOSOTE is an expectorant and anticatarrhal preparation each fluid dram of which contains creosote carbonate 1 minim, guaiacol 3 minims, terpin hydrate 1 grain, diacetylmorphine hydrochloride 1/32 grain, sodium glycerophosphate 1 grain, calcium glycerophosphate ½ grain, glycerin, alcohol, and flavoring. Dose, a teaspoonful three to six times daily.—Mfrs.: Independent Pharmaceutical Co., Worcester, Mass.

GLYCOFORM or *glycoformal* is a mixture of 75 parts of solution of formaldehyde, 15 parts of water, and 10 parts of glycerin. It is used for disinfecting purposes.—Mfrs.: Lingner & Kraft, Dresden, Germ.

GLYCOGEN *(animal starch)*, $(C_6H_{10}O_5)_n+H_2O$, is a constituent of normal livers, muscles, blood, yeast, etc. It forms a yellowish-white, odorless and tasteless powder, soluble with opalescence in water and insoluble in alcohol. Though formerly only of physiologic interest, glycogen has in recent years been recommended as a roborant and systemic bactericide in tuberculosis, typhoid fever, neurasthenia, etc. Dose, by mouth, 1 to 5 grains daily, as pills; used also subcutaneously.—Mfr.: Vial, Paris, France; agts.: E. Fougera & Co., New York.

GLYCOGENAL is a substance closely related to glycogen, and occurring as a yellow powder soluble in water, and employed the same way as glycogen. Dose, per os, 4 to 8 grains twice daily; subcutaneously, 1 grain; by rectal injection, up to 30 grains with about 8 grains of ammonium carbonate.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

GLYCONDA is "a concentrated, sugarless neutralizing cordial" which is said to be the original of the National Formulary compound syrup of rhubarb and potassium.—Mfrs.: Lloyd Bros., Cincinnati, Ohio.

GLYCONES are paraffin-coated glycerin suppositories supplied in *adult* and in *infant* sizes.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

GLYCOPHENIN is a brand of *saccharin*.

GLYCOSAL is the trade name for *salicylic acid glycerin ester* or *ether*, also known as *glycerin salicylate*, $C_6H_4OH.COO.C_3H_5(OH)_2$. The article forms a white powder readily soluble in alcohol, soluble in 100 parts of water, and moderately soluble in ether or chloroform, while being miscible with glycerin; alkalies and their carbonates readily saponify it. It is employed internally in place of sodium salicylate; also externally as 20 per cent. alcoholic solution applied as a paint in articular rheumatism. Dose, 2 to 3 drams daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., *New York*.

GLYCOSINE is a brand of *saccharin*, claimed to be 550

times as sweet as cane sugar. Marketed by Fries Bros., New York.

GLYCOZONE is defined by the makers as "a peculiar chemical compound * * * resulting from the reaction which takes place when chemically pure glycerin is submitted to the action of fifteen times its own volume of nascent oxygen * * * at a temperature of 0° C." Its composition is given as 5 to 7 per cent. of glyceric acid, 88 to 91 per cent. of double distilled glycerin, plus a small proportion of glycerides and water. It is used externally undiluted as a disinfectant vulnerary, and internally as an antizymotic. Dose, 1 to 2 fluid drams.—Mfrs.: Brevet Mfg. Co., New York.

GLYKAOLIN is a product analogous to the official *cataplasma kaolini;* "a compound of aluminium silicate, salol, and glycerin." Supplied also as *picrated glykaolin.* Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

GOLD COLLOIDAL.—See *collaurin.*

GOMENOL is the essential oil of melaleuca viridiflora, and hence closely analogous to oil of cajuput. It is used internally, chiefly in phthisis and bronchial or laryngeal affections; externally, by inhalation or spray (10 to 50 per cent. strength), in respiratory ailments. Dose, 4 to 8 minims several times daily, in capsules or syrup. Marketed also as 0.5-gram capsules.—Mfrs.: Schimmel & Co., Miltitz, Germ.; agts.: Fritzsche Bros., New York.

GONOSAN, also known as *kawa santal,* is a 20-per-cent. solution of resin of kava kava in East India oil of sandalwood. It is marketed only as 0.3-gram capsules, 2 to 4 of which are given several times daily in gonorrhea.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

GONOSTYLI is the collective trade name for Unna's paste pencils composed of water, starch, sugar, dextrin, and a remedial agent. The gonostyli are hard but soluble in water. They are made containing the following remedial agents: *Albargin,* 0.75 per cent.; *silver nitrate,* 0.2 to 2 per cent.; *argonin,* 1 per cent.; *ichthargan,* 0.1 to 0.5 per cent.; *protargol,* 0.2 per cent.; *zinc sulphate,* 0.5 per cent.—Mfrs.: P. Beiersdorff & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

GORIT is described under *calcium peroxide.*

GRAMINOL *(graminin)* is a polyvalent dry serum obtained from the blood of herbivorous animals during the flowering season of gramineæ (grasses). It is a hay-fever antitoxin, used as a prophylactic and palliative. For the former purpose it is snuffed up once or twice daily for one or two weeks before the expected attack; during the attack it is used every four to six hours, and when going out it is used hourly. On the eye it is used as a powder, or it is made into a liquid with distilled water or physiological salt solution.—Mfrs.: Serum Laboratory Reute *Enoch, Hamburg,* Germ.

GRAVIDIN is the name applied to a fluid extract of

fresh fucus serrates. The article is used especially in the vomiting of pregnancy. Dose, 10 drops every two hours.

GUACAMPHOL is the terse name for *guaiacol camphoric acid ester* or *guaiacol camphorate*, $C_8H_{14}(COO.C_6H_4.O.CH_3)_2$. The drug occurs as white needles without odor or taste; insoluble in water, moderately soluble in alcohol or chloroform. It is employed as an antihydrotic. Dose, 3 to 15 grains.—Mfr.: Dr. G. F. Henning, Berlin, Germ.

GUAETHOL, chemically *pyrocatechin monoethyl ether* or *guaiacol-ethyl*, $C_6H_4.OC_2H_5OH$, is known also as *æthacol, ajakol, homo-cresol*, and *thanatol;* a nearly colorless, oily liquid of aromatic odor and crystallizing in the cold, and soluble in alcohol, ether or chloroform. It is intended as a succedaneum for guaiacol. Dose, 4 to 8 minims several times a day, in pills.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

GUAIACACODYL is a trade name for *guaicacol cacodylate.*

GUAIACODEINE *(codeine orthoguaiacolsulphonate)* occurs as a white, odorless, crystalline powder or as cubical crystals, soluble in about 95 parts of water and 450 parts of alcohol; slightly soluble in chloroform and insoluble in ether. It contains 59.44 per cent. of anhydrous codeine.—Mfrs.: N. Y. Quinine & Chem. Works, New York; agts.: McKesson & Robbins, New York.

GUAIACOL BENBOATE is better known by the trade name *benzosol*, under which it is described.

GUAIACOL BENZYL ESTER.—See *benzcain.*

GUAIACOL CACODYLATE *(cacodyliacol)* occurs as white or reddish-white crystals, soluble in water, alcohol, glycerin or oil, insoluble in ether, and of pungent taste. It is used subcutaneously in oily solution in tuberculosis. Dose, ½ to grain.—Mfrs.: E. Merck and others.

GUAIACOL CAMPHORIC ACID ESTER is described under *guacamphol.*

GUAIACOL CARBONATE, also known by the trade name *duotal*, $(C_6H_4OCH_3)_2.CO_3$, is now official and as such well known to pharmacists and physicians.

GUAIACOL CINNAMATE.—See *styracol.*

GUAIACOL ETHYLENE, $CH_3O.C_6H_4O.C_2H_4OC_6H_4OCH_3$, occurs as colorless needles that are sparingly soluble in water but easily so in alcohol. It is prescribed in phthisis, like other guaiacol compounds. Dose, 7½ to 15 grains two or three times daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

GUAIACOL-FORMALDEHYDE is referred to under *methylene-diguaiacol.*

GUAIACOL-ETHYL.—See *guaethol.*

GUAIACOL GLYCERYL ESTER is *guaiamar.*

GUAIACOL-HEMOCOLADE.—See *guaiacolade.*

GUAIACOL-IODOFORM is described as a solution of 1 part *of iodoform in* 4 parts of guaiacol and 1 part of *almond oil;* a *reddish*-brown, thick fluid, used diluted with

16 parts of olive oil by French physicians by injection in surgical tuberculosis and pleurisy—3 c.c. of the dilution per dose.

GUAIACOL METHYLGLYCOLATE.—See *monotal.*

GUAIACOL PHOSPHATE *(phosphoric acid guaiacyl ether)*, $(C_6H_4COOCH_3)_3PO$, occurs as a white powder soluble in alcohol or chloroform but insoluble in water. It is an antitubercular. Dose, 1½ to 3 grains three times a day.

GUAIACOL PIPERIDINE.—See *guaiaperol.*

GUAIACOL SALICYLATE *(guaiacol salol; guaiacol salicylate)*, $C_6H_4OCH_3.C_7H_5O_3$, forms a white, tasteless crystalline powder of salol-like odor and soluble in alcohol, ether and chloroform but insoluble in water. It is used as an antitubercular and intestinal disinfectant. Dose, 15 grains several times daily, up to 2½ drams per day.—Mfrs.: Von Heyden, Radebeul, Germ.; agts.: Merck & Co. and Schering & Glatz, New York.

GUAIACOL-SOMATOSE.—See under *guaiacose.*

GUAIACOL TANNO-CINNAMATE.—See *guatannol.*

GUAIACOL VALERATE is described under its trade name, *geosote.*

GUAIACOLIN is another of the recently introduced syrups of potassium guaiacosulphonate or sulphoguaiacolate, containing 5 per cent. of the latter.

GUAIACOSE is the trade name adopted for *liquid guaiacol-somatose*, containing 8 per cent. of calcium guaiacolsulphonate, and occurring as a dark-brown liquid miscible with water. It is offered as an expectorant, antiseptic and alterative, as well as a tonic and nutrient. Dose, 3 to 4 teaspoonfuls per day.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

GUAIACYL or *gajacyl* is *calcium ortha-guaiacolsulphonate*, $(C_6H_3[OH].[OCH_3]SO_3)_2.Ca$; a bluish-gray powder soluble in water or in alcohol. Its 5-per-cent. aqueous solution is violet-red, and is used hypodermically in quantities of 8 to 24 minims as a local anesthetic. Sometimes a 10-per-cent. solution is employed.

GUAIAFORM *(geoform)* is referred to under *methylene-diguaiacol.*—Mfr.: Dr. G. F. Henning, Berlin, Germ.

GUAIALIN is defined as the "*benzoic acid ester of methylene-diguaiacol*, the empiric formula of which is $C_{24}H_{18}O_4$." It occurs as an odorless, nearly tasteless, greenish powder, containing about 60 per cent. of guaiacol. It is employed as an internal antiseptic and antitubercular. Dose, 10 to 30 grains. See caution under *formaldehyde.*—Mfr.: Organic Chem. Co., Fort Washington, Pa.

GUAIAMAR is the trade name for *guaiacol glyceryl ester* or *glyceryl guaiacolate*, $C_6H_4.OCH_3.OC_3H_7O_2$. The drug occurs as a white powder of bitter-aromatic taste; soluble *in 20 parts of* water, in alcohol, chloroform, or ether; *decomposed by* alkalies. It is prescribed as an intestinal *antiseptic and* antitubercular; occasionally in 25-per-cent.

ointment in acute articular rheumatism. Dose, 3 to 15 grains.—Mfrs.: Mallinckrodt Chem. Works, St. Louis, Mo.

GUAIAPEROL or *guaiaperon* is a trade name applied to *guaiacol-piperidine* or *piperidine guaiacolate*, $C_5H_{11}NH.OH.C_6H_4.OCH_3$. The medicament occurs as colorless crystals that are soluble in about 30 parts of water, soluble also in alcohol or ether, and decomposed by acids or alkalies. It is used chiefly in phthisis. Dose, 2 to 5 grains several times a day.

GUAIAQUIN *(quinine diguaiacolsulphonate)* is a yellow, bitter, slightly hygroscopic powder or small lumps soluble in water, alcohol or diluted acids. It is prescribed as an antipyretic and antiperiodic. Dose, 2 to 10 grains.—Mfrs.: N. Y. Quinine & Chem. Works, New York; agts.: McKesson & Robbins, New York.

GUAIAQUINOL or *guaiakinol* or *gajachinol* is chemically *quinine dibromoguaiacolate*, $C_6H_2Br_2(OCH_3)OCH_{20}H_{24}N_2O_2$, a substance freely soluble in water and combining the therapeutic properties of quinine, bromine and guaiacol and hence used as an antipyretic, sedative and antitubercular. Dose, 8 to 20 grains.

GUIPSINE is "a new vegetable hypotensive agent representing the active principles of mistletoe," used in arteriosclerosis, vertigo, climacteric disturbances, etc. It is marketed only in pills, 6 to 10 of which are taken per day, between meals.—Agt.: Geo. J. Wallau, New York.

GUAJACETIN is the trade name for *sodium pyro (brenz) catechin-monoacetate* or *sodium phenone acetate*, $C_6H_4.OH.OCH_2COONa$. The remedy occurs as a white, odorless, slightly bitter powder which is soluble in 30 parts of water. It is employed in phthisis. Dose, 7½ to 15 grains.—Mfrs.: Drs. Von Gember and Fehlhaber, Weissensee, Germ.; agts.: Fuerst Bros., New York.

GUJASANOL is the *hydrochloride of diethylglycocoll-guaiacol*, $C_6H_4.OCH_3O.CO.CH_2.N.(C_2H_5)_2.HCl$, occurring as white crystals of faint guaiacol odor and a salty, bitter taste, soluble in about 1 part of water, about 32 parts of alcohol, and insoluble in ether. It is used in tuberculosis mainly, but to some extent locally as an antiseptic and deodorant in 1 to 2 per cent. solutions. Dose, 15 to 45 grains, in wafers, or subcutaneously in 20 per cent. solution. Incompatible with alkalies.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

GUYCOSE is the name applied in England to *guaiacose* (guaiacol somatose).

GYNOVAL is defined as the *isoborneol ester of isovaleric acid*. It occurs as a colorless, neutral liquid having a peculiar aromatic odor and a faintly oily taste. It is very sparingly soluble in water but readily soluble in the other ordinary organic solvents. It is offered as a substitute for the customary valerian preparations. Marketed in pearls each containing 4 grains. Dose, 2 pearls two to four times

daily, after meals.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

GYSSOPLASMA is a preparation similar to the official cataplasm of kaolin.

H

HÆ compounds.—See *he*.

HAIMOGEN is a medicinal cacao containing 2½ per cent. of soluble iron, lecithin, albumin and nutritive salts. It is used as a chalybeate nutritive.—Mfr.: Hess. Apotheke V, Germany.

HARDIELLA is a disinfectant similar in composition to the official *solution cresol compound*.—Mfrs.: Nahnsen Bros., Hamburg, Germ.

HEBESIN is a dermatologic specialty exploited as a wrinkle-remover and skin-rejuvenator. According to Dr. Aufrecht, it consists essentially of casein 15 parts, powdered alum 8 parts, talcum 4 parts, glycerin 4 parts, and rosewater 70 parts.—Mfr.: E. A. Weidemann, Liebenburg, Germ.

HECTARGYRE is described as a compound of hectine and mercury, and is employed as an antiluetic hypodermically. Dose, 20 to 30 drops of a 1/10-per-cent. solution daily.

HECTINE is defined as *sodium benzo-sulphopara-aminophenylarsenate*. It forms long, colorless needles that are readily soluble in water, and its solutions may be sterilized by heat and are stable. It is offered as a less toxic succedaneum for atoxyl. Dose, 1 c.c. of a 1/10-per-cent. solution, usually hypodermically. See caution under *sodium arsanilate* or *soamin*.

HEDIOSIT is the trade name applied to *alphaglycoheptonic acid lactone*, $C_7H_{12}O_7$. Hydrocyanic acid is caused to act upon glucose and the resulting nitrile saponified, whereby it is readily converted into alpha- and betaglycoheptonic acids; these are separated by a patented process, and by abstraction of water the lactone of the alpha modification is produced. The article occurs as glistening crystals melting between 145° and 148° C., readily soluble in water, sparingly soluble in water, and insoluble in ether. It is intended as a sweetener of the food in diabetic patients, and is said to be completely absorbed and harmless, and as a rule diminishing glycosuria. Dose, up to 1 ounce per day.—Mfrs.: Meister, Lucius & Brüning, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

HEGONON is obtained by treating silver ammonium nitrate with albumose. It occurs as a light-brown powder readily soluble in water, and containing about 7 per cent. of silver. Its solutions do not coagulate albumin, nor are they precipitated by sodium chloride. It is used as a substitute for silver nitrate; for urethral injections, in ¼-per-

cent. solution; for irrigation, in from 1:6000 to 1:2000 solutions. Its solutions should be dispensed in black or dark-amber bottles.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

HEDONAL *(methylpropylcarbinol-urethane)*, $C_6H_{13}O_2N$, occurs as a white powder sparingly soluble in water but readily soluble in the remaining organic solvents, and of faint aromatic odor and taste. It is incompatible with alkalies and their carbonates and bicarbonates. It is prescribed as a mild hypnotic. Dose, 15 to 30 grains.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

HELCOSOL is described under *bismuth pyrogallate.*

HELGOTAN is a *methylene-tannin compound* analogous to *tannoform* and used similarly. A *helgotan bromated* is also made.—Mfr.: Dr. A. Voswinkel, Berlin, Germ.

HELKOMEN is *bismuth dibrom-beta-oxynaphtholate*, and is exploited as a substitute for iodoform. It occurs as a yellow, odorless, insoluble powder, containing about 73 per cent. of metallic bismuth and 19.5 per cent. of bromine. —Mfr.: Gideon Richter, Budapest, Hung.; agts.: Lehn & Fink, New York.

HELMITOL is *hexamethylenetetramine anhydro-methylenecitrate*, $C_6H_8O_7(CH_2)_6N_4$, forming colorless crystals or white powder having an agreeable acidulous taste, soluble in about 10 parts of water, almost insoluble in alcohol and ether. It is used as a urinary disinfectant and acidifier. Dose, 10 to 15 grains three or four times daily, in water. Acids slowly decompose it, alkalies very easily so, with the formation of formaldehyde. Helmitol is identical with *new urotropin.*—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

HELOGOTANUM BROMATUM is a brominated tannin-methylenamine, containing about 20 per cent. of bromine, and occurring as a yellowish-brown, odorless and tasteless powder. It is employed as an astringent and antipruritic, either as powder or as ointment.

HEMABALOIDS is a ferruginous tonic said to contain in each 100 c.c. 0.4 gram of iron combined with proteins and nucleoproteins 4 grams, bone marrow extract 5 grams, and nuclein 0.04 gram, in a menstruum containing 17 per cent. of alcohol by volume. Dose, ½ fluidounce, children in proportion. *Hemalbuminoids arseniated with strychnine* contains the equivalent of 1/40 grain of arsenous acid and 1/80 grain of strychnine to teach tablespoonful.—Mfrs.: Palisade Mfg. Co., Yonkers, N. Y.

HEMALBUMIN (Dahmen) is an iron compound prepared from blood, consisting of hematin, hemoglobin, serous albumin and paraglobulin, together with the mineral salts of blood. It occurs as a blackish-brown powder of cinnamon odor and soluble in hot water and diluted alcohol. It is used as a blood builder. Dose, 15 to 30

grains thrice daily.—Mfr.: F. W. Klewer, Cologne, Germ.; agts.: Lehn & Fink, New York.

HEMARTOL is an iron preparation similar to hematogen and used like the latter.—Mfr.: Apotheker A. Müller, Kreuznach, Germ.

HEMATACID is a preparation analogous to hemalbumin.—Mfr.: Robt. Harras, Augsburg, Germ.

HEMATIN-ALBUMIN is a ferruginous albumin preparation consisting of dried blood-fibrin. It occurs as a fine, brownish-red, tasteless and odorless powder. It is given as a hematinic. Dose, 1 to 2 small teaspoonfuls three times daily, in milk or water.—Mfr.: Apotheker Benzon, Copenhagen, Denmark.

HEMATOGEN (Hommel) is essentially germ-free evaporated blood obtained by a very tedious process. It is marketed only as an elixir containing in each pint 4 oz. of glycerin and 2 oz. of Malaga wine. It is intended as a "blood-builder." Dose, a teaspoonful to a tablespoonful two or three times a day before meals.—Mfrs.: Nicolay & Co., Hanau, Germ.; agts.: Lehn & Fink, New York.

HEMATONIC is a hematinic each fluid ounce of which represents 40 grains of iron albuminate. Dose, a teaspoonful.—Mfrs.: Tilden Co., New Lebanon, N. Y.

HEMATOPAN is an analogue of *hematogen*, which see.—Mfrs.: Sudbracker Nährmittelwerke, Bielefeld, Germ.

HEMICRANIN is a mixture of 5 parts of phenacetin, 1 caffeine, and 1 citric acid, and used as an analgesic and dental obtundent. Dose, 10 to 15 grains. Large doses have been given in jaundice.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

HEMINAL is a "blood-iron albuminate, free from fibrin, urea, and all excretory products, and containing 0.25 to 0.3 per cent. of metallic iron in soluble and assimilable form"; a dark-brown powder of faintly acid taste. Dose, 5 to 15 grains thrice daily, in capsule or warm water.—Mfrs.: Parwe, Davis & Co., Detroit, Mich.

HEMOFERRUM is an aromatic solution containing 4 grains of oxyhemoglobin to the teaspoonful. It is intended as a "blood-builder." Dose, 1 to 2 teaspoonfuls thrice daily.—Mfrs.: F. K. Stearns & Co., Detroit, Mich.

HEMOFORM is the name given by Libbertz to his hematogen, a reddish-brown powder soluble on stirring in water, and marketed in dry, inspissated and liquid forms.—Mfr.: Apotheker Libbertz, Hamburg, Germ.

HEMOGALLOL is derived from hemoglobin by reduction with pyrogallol, and occurs as a reddish-brown, insoluble powder. It is prescribed as an assimilable organic iron compound. Dose, 4 to 8 grains before meals, in powders with sugar, or as 4-grain tablets (marketed also as such).—*Mfr.:* E. Merck, Darmstadt, Germ.; agts.: Merck & Co., *New York.*

HEMOGLOBIN (hematocrystalline) is the red coloring matter of blood. It occurs as a brownish-red powder or

scales, soluble in water. It is employed as a hematinic. Dose, 5 to 30 grains.—(Nonproprietary.)

HEMOL is hemoglobin deoxidized by zinc; a dark-brown insoluble powder employed as a "blood-builder" in doses of 2 to 8 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

HEMOL, ARSENATED.—See *arsenhemol.*

HEMOL BROMIDE is described under *bromohemol.*

HEMOL, CUPRATED.—See *cuprohemol.*

HEMOL, IODIZED, is referred to under *iodohemol.*

HEMOQUININE is said to contain in each 100 c.c. iron peptonate 7.2 grams, manganese peptonate 1.8 grams, quinine peptonate 1 gram (equivalent to 0.5 gram of quinine sulphate), and sodium arsenate 0.266 gram, in a menstruum containing 20 per cent. of alcohol with glycerin and aromatics. It is offered as a hematinic and alterative. Dose, 2 fluid drams.—Mfrs.: Schieffelin & Co., New York.

HEMOSE is dried, pepsinized and hydrochlorated blood-albumin; a light reddish-brown, almost odorless and tasteless powder, soluble in alkaline solutions. It contains 0.286 per cent. of iron, 0.17 per cent. of phosphoric acid, besides the natural constituents of blood. Dose, a teaspoonful two or three times daily, in cold milk; hot liquids must be avoided.—Mfr.: Dr. Herman Stern, Berlin, Germ.

HEMOSTASIN is a brand of the active principle of the suprarenal capsule, an article described under the title *epinephrine.*—Mfrs.: Schweitzerisches Serum- und Impf. Institut, Basle, Switzerland.

HEMOSTATIN of this market is a 1:1000 solution of the active constituent of the suprarenal gland. (See note under *epinephrine.)* Abroad the name applies to a *tribrom-phenol-bismuth* like xeroform but containing less bromine.—Mfrs.: H. K. Wampole Co., Philadelphia, Pa.

HEMOSTYPTIC (Brüninghausen) is a fluid extract of a mixture of two parts of ergot and one part of golden seal, prepared with alcohol, ether and glycerin, in vacuo under pressure. It contains 2.6 per cent. of total alkaloid, and is given as an internal hemostatic in the dose of 30 drops four times daily.—Mfrs.: Engel-Apotheke, Cologne, Germ.

HEPATIX is a diuretic mixture: "each fluid ounce represents hepatica 64 grains, epigæa repens 48 grains, potassium nitrate 16 grains, oil gaultheria 16 minims, spirit juniper and aromatics q. s."—Mfr.: Norwich Pharmacal Co., Norwich, N. Y.

HEPATONE is a granular effervescent sodium phosphate containing 50 per cent. of crystalline sodium phosphate and ½ grain of phenolphthalein per dram. Dose, 2 to 4 drams.—Mfr.: H. K. Mulford Co., Philadelphia, Pa.

HEPIN is a ferment or catalase obtained from livers, 0.075 c.c. of which can generate 1 liter of oxygen from 100 c.c. of official solution of hydrogen dioxide. It is used

for preparing hepin oxygen-baths.—Mfrs.: Behring Works, Marbourg, Germ.; agts.: Schering & Glatz, New York.

HEPPTINE is defined as being the pure physiologic gastric juice of living pigs as obtained by Dr. Maurice Hepp.—Dispensers: Laboratories of Applied Physiology, New York.

HERARD'S SERUM.—See *serums artificial.*

HERMOPHENYL is the name adopted for *mercury-sodium phenoldisulphonate*, $C_6H_3.OHg(SO_3Na)_2$, which occurs as a white powder containing about 40 per cent. of mercury; soluble in 5 parts of water, and insoluble in alcohol. It is used as an antiseptic, in 0.1 to 2 per cent. solutions, and internally and by intramuscular injection in syphilis. Dose, by mouth, ¼ to ½ grain thrice daily; in injection, 30 to 60 minims of a 1-per-cent. solution once a day.—Mfrs.: Soc. Anonyme des Produits Chim. Specieux, Lyons, France.

HEROIN and HEROIN HYDROCHLORIDE are trade names for *acetyl-morphine* and its hydrochloride, respectively.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

HEROLINE is a 33⅓-per-cent. emulsion of petrolatum, containing besides in each fluid ounce heroin hydrochloride 1/16 grain, calcium hypophosphite 8 grains, and sodium hypophosphite 8 grains. It is used mainly in phthisis and chronic bronchitis.—Mfrs.: English & McLarty, Charlotte, N. C.

HEROMAL is a tonic and cough sedative each dose (2 fluid drams) of which contains 1/48 grain of heroin and ½ grain of sodium hypophosphite, in a menstruum of malt extract with 6 per cent. of alcohol.—Mfrs.: Schieffelin & Co., New York.

HEROTERPINE is a cough sedative and anticatarrhal each dose (2 fluid drams) of which contains terpin hydrate 2 grains and heroin 1/24 grain, in a menstruum containing 32 per cent. of alcohol with glycerin and aromatic essential oils.—Mfrs.: Schieffelin & Co., New York.

HETOCRESOL is *cinnamyl-meta-cresol* or *meta-cresol cinnamic acid ester*, and occurs as a white to yellowish powder, insoluble in water but soluble in chloroform, ether or hot alcohol. It is used locally in surgical tuberculosis, as dusting-powder, or as ethereal spray with or without iodole or iodoform.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Lehn & Fink, New York.

HETOFORM is *bismuth cinnamate*, which see.

HETOL is a trade name for the chemical *sodium cinnamate*.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Lehn & Fink, New York.

HETOL-SANGUINAL pills contain besides sanguinal 1 milligram of hetol (sodium cinnamate) each, and are used in tuberculosis—1 gradually increased to 6 daily—Mfrs.: *Krewel & Co., Cologne*, Germ.; agts.: Lehn & Fink, New *York.*

HETRALIN is the trade name applied to *dioxybenzene-hexamethylenetetramine* or *resorcin-hexamethylenetetramine*, $C_6H_4(OH)_2.(CH_2)_6N_4$, which occurs as white, permanent needles that are soluble in 14 parts of water and contain 60 per cent. of hexamethylenamine (urotropin, formin, etc.). Dr. R. Ledermann introduced the article as a urinary disinfectant like hexamethylenamine. Dose, 8 grains three or four times a day. See caution under *formaldehyde*.—Mfrs.: Chas. Zimmermann & Co., Hamburg, Germ.

HEXAMECOL is a molecular combination of hexamethylenamine and guaiacol, containing about 65 per cent. of guaiacol, and occurring as colorless, long, shining needles that are soluble in 25 parts of water and soluble also in alcohol or chloroform. It is used by inunction as a succedaneum for liquid guaiacol in all its local uses (antipyretic and anodyne); it is rapidly absorbed.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

HEXAMETHYLENAMINE *(hexamethylenetetramine)* is official in the U. S. P. It is also known by various trade names—*aminoform, ammonio-formaldehyde, cystamine, cystogen, formin, hexamine, uristamine, uritone, urotropin*, etc. See caution under *formaldehyde*.

HEXAMETHYLENAMINE ANHYDRO-METHYLENE CITRATE is better known as *helmitol* and *new urotropin*, and is described under the former title.

HEXAMETHYLENAMINE BROMETHYLATE is a synonym for *bromalin;* see this title.

HEXAMETHYLENAMINE SALICYLATE.—See *saliformin*.

HEXAMETHENAMINE-TANNIN.—See *tannopine*.

HEXAMETHYLENAMINE TRIBORATE.—See *borovertin*.

HEXAMETHYLENAMINE AND SODIUM ACETATE.—See *cystopurin*.

HEXAMINE is one of the numerous trade names for *hexamethylenamine*.—Mfrs.: Larner & Barker, Syracuse, N. Y.

HEXAQUINOL *(hexachinol)* is *hexamethylenamine oxyquinolate*, and is intended chiefly for use in the treatment of gonorrhea. Marketed by Parmele Pharmacal Co., New York.

HEXOS is a name applied to capsules containing hexamethylenamine 2 grains, copaiba 3 minims, oleoresin saw palmetto 3 minims, oil sandalwood 3 minims, oleoresin cubeb 3 minims, oil nutmeg ¼ grain, and olive oil q. s. The article is used as a genitourinary antiseptic and antiphlogistic. Dose, 1 1to 2 capsules three times daily.—Mfr.: H. K. Mulford Co., Philadelphia, Pa.

HIPPOL is what A. Nicolaier, the introducer of urotropin, calls *acid methylene-hippuric*, which product is, *however, not* really an acid, but probably an ester of hip-

puric acid, of the constitution $C_6H_5.CO.N:(CH_2)_3.CO.O$. It forms colorless, odorless and tasteless prisms soluble in about 500 parts of water and readily soluble in chloroform. It is used as an urinary disinfectant, readily splitting off formaldehyde in the system. Dose, 15 to 30 grains three or four times daily. See caution under *formaldehyde*.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

HIRUDIN is a preparation of the leech, said to contain the constituent of leeches' heads that inhibits coagulation of the blood, 1 milligram of which suffices to render 7.5 c.c. of blood incoagulable for twenty-four hours, without affecting its composition. It occurs as brown scales or masses, soluble in water but insoluble in alcohol or ether. It is used intravenously in certain diseases of women, generally 3 to 5 grains dissolved in 500 c.c. of physiologic salt solution; also technically.—Mfrs.: E. Sachsse & Co., Leipsic, Germ.; agts.: C. Bischoff & Co., New York.

HISTOGENOL is a mixture of 5 parts of disodium methylarsenate and 20 parts of nucleinic acid derived from herrings. It is used by French physicians in tuberculosis. Marketed as ampoules, drops, elixir, etc.—Mfr.: Dr. A. Mouneyrat, Paris, France; agts.: E. Fougera & Co., New York.

HISTOSAN is an antitubercular the chief constituent of which is a guaiacol-albumin compound designated as triguaiacol albuminate. It is insoluble in water or alcohol but soluble in alkali solutions. Dose, 4 to 8 grains. Marketed also as *histosan syrup*.—Mfrs.: Fabrik Chem & Diät.-Produkte, Schaffhausen, Switzerland; agts.: C. Bischoff & Co., Inc., New York.

HOLADIN is described as "an extract of the entire pancreas. It presents all the constituents of the gland, the activated enzymes and cell substance. While possessing great tryptic activity, it is of special potency in respect to the amylolytic and lipolytic enzymes." It occurs as a grayish-white, slightly aromatized, somewhat hygroscopic powder, freely but not wholly soluble in water. Holadin digests starch and proteids and emulsifies fats, and is hence used as a general digestant. It is furnished only in 3-grain capsules. Dose, 1 to 3 capsules about three hours after meals and at bedtime.—Mfrs.: Fairchild Bros. & Foster, New York, N. Y.

HOLOCAIN (*phenetidyl acetphenetidin* or *dieth-oxy-ethenyl-diphenyl-amidine hydrochloride*), $C_{18}H_{22}N_2O_2.HCl$, occurs as a white, odorless, bitter powder, soluble in 50 parts of hot water, and freely soluble in alcohol. It is used as a local anesthetic, like cocaine, chiefly on the eye (1 per cent. solution); it should not be used hypodermically or internally. It is extremely sensitive to alkalies, hence its solutions should be made in porcelain capsules and *kept in porcelain* containers or in bottles that have been *treated with hydrochloric* or sulphuric acid (to remove

the alkali present in the glass as far as possible) and thoroughly rinsed in distilled water; only distilled water should be used.—Mfrs.: Meister, Lucius & Brüning, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

HOMOCRESOL is a synonym of *guæthol;* see this title.

HONTHIN is a keratinized tannin albuminate used as an intestinal astringent; a grayish-brown, odorless, tasteless, insoluble powder, slowly decomposed by alkalies. Dose, 15 to 30 grains several times daily.—Mfrs.: G. Heil & Co., Troppau, Austria.

HOPOGAN is the German equivalent of *biogen.*—Mfrs.: Kirchoff & Neirath, Berlin N, Germany.

HORMONAL *(peristaltic hormone Zuelzer)* is a liquid extract obtained from the spleen of an animal killed at the height of digestion. It is employed by intramuscular or by intravenous injection as a cathartic. Dose, 20 c.c. The article intended for intramuscular use is put up in brown bottles each containing 20 c.c. admixed with ¼ per cent. of beta-eucaine hydrochloride and 0.4 per cent. of trikresol as preservative. The hormonal designed for intravenous injection is furnished in blue vials, and is used chiefly in cases of intestinal paresis and post-operative ileus.—Mfrs.: E. Schering, Berlin (Germ.); agts.: Schering & Glatz, New York.

HOWELL'S SERUM.—See under *serums artificial.*

HORMONES is the collective name applied to the activating principles contained in the organs and gluctless glands and their internal secretions.

HUX-SAL is described as "a double salt, partially a chemical combination and partially a mechanical mixture of antiseptic materials, which in 2 per cent. solution is equal to mercury bichloride as a germicide."—Mfrs.: Anglo-Amer. Pharm. Co., New York; agts.: E. Fougera & Co., New York.

"Hy."—See hyperideal 606.

HYCOL is described as a "diluted tar product containing 38 per cent. of phenoloids." It is a disinfectant of the *creolin* class.—Mfrs.: Pearson's Antiseptic Co., London, Eng.

HYDRACETIN.—See *acetylphenylhydrazin.*

HYDRAGOGIN is a vegetable diuretic consisting of "tincture of digitalis 1.5 parts, tincture of strophanthus 2.5 parts, scillipicrin and scillitoxin, the active principles of squill, and 0.5 part of oxysaponin;" a dark-brownish liquid which foams on being shaken. Dose, 7 to 15 drops every three or four hours, in sweetened water.—Mfr.: Karl Raspe, Weissensee, Germ.; agts.: C. Bischoff & Co., Inc., New York.

HYDRARGOL is a trade name for *mercury succinimide,* marketed in tubes containing 1 c.c. of solution corresponding to 7 milligrams of metallic mercury. The article is said to cause no pain when injected intramuscularly.—Mfrs.: Tardieu & Co., Paris, France.

HYDRARGOLENT is the collective name adopted for

soft capsules of mercurial ointment 50 per cent. and 33⅓ per cent., containing 3, 4 and 5 grams each of either strength ointment. These caapsules are intended as a cleanly and convenient means of carrying out the inunction treatment of syphilis.

HYDRARGOTIN is a brand name for *mercury tannate*. —Mfrs.: G. Hell & Co., Troppau, Austria.

HYDRARGYROL is *mercury para-phenolsulphonate* $C_6H_4.OH.SO_3Hg$; reddish scales, of peppermint odor and soluble in water and glycerin. It does not react with the ordinary tests for mercury or phenol nor coagulate albumin. It is intended as a substitute for corrosive sublimate.

HYDRARSAN is a mixture of phenacetin 10 grains, mercuric chloride ⅛ grain, arsenic chloride 1/10 grain, and potassium iodide 5 grains. This constitutes the ordinary dose in syphilis, and is usually given in solution, combined with tincture of cinchoma.

HYDRASTINE, $C_{21}H_{21}N_5$, is the white alkaloid of hydrastis canadensis (golden seal), now official.

HYDRASTININE BITARTRATE is a new salt of hydrastinine, employed as a uterine hemostatic in doses of ½ to 1 grain.—(Nonproprietary.)

HYDRO-CRESOL is a product similar to lysol and the official *liquor cresolis compositus*. It is said to contain 51 per cent. of the natural mixture of the three isomeric cresols.—Mfrs.: White Tar Co., New York.

HYDRON is a chalybeate and bitter tonic, each fluid ounce of which represents fluid hydrastis 24 minims, iron glycerophosphate 4 grains, fluid extract collinsonia (green root) 24 minims, fluid extract avena sativa 30 minims, combined with wine. Dose, 1 to 2 fluid drams.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

HYDRONAPHTHOL is defined by the makers as "a secondary compound derived from betanaphthol." According to analyses made in the chemical laboratories of the American Medical Association, it appears to be *betanaphthol* itself.—Mfrs.: Seabury & Johnson, New York.

HYDROPYRIN as now marketed is *lithium acetylsalicylate*, a white, odorless, crystalline powder, soluble in water and containing 96.48 per cent. of acetylsalicylic acid and 3.42 per cent. of lithium. First the *sodium* salt was so named, but proved too unstable and hence has been withdrawn from the market. It is a soluble form of aspirin, used in the same doses as the latter.—Mfr.: Gideon Richter, Budapest, Hungary; gats.: Lehn & Fink, New York.

HYDROQUININE HYDROCHLORIDE contains two more molecules of hydrogen than quinine hydrochloride and crystallizes with $2H_2O$. It is prepared synthetically from quinine. In action 9 grains corresponds to 12 or 15 grains of quinine.

HYDROSOL is an aqueous solution of collargol (*colloidal mercury*).

HYDROPSIN is a compound elixir of squill, said to be

made by pressing out 100 grams of fresh squill, macerating 20 grams of the juice with 5 grams of ether and 10 grams of 70 per cent. alcohol for three days, distilling off the alcohol and ether, and mixing 100 grams of the residue with 1,000 grams of purified honey, 50 grams of potassium borotartrate and 100 grams of tincture of gentian.

HYDROXYCODEINE is a new opium alkaloid. It is a tertiary base, of the formula $C_{18}H_{21}O_4N$; it melts at 51° C. and forms a hydrobromide, which crystallizes in large prisms. It is slowly soluble in water and the organic solvents.

HYGIAMA is a dietetic and nutritive composed of milk, malt, wheat flour, cacao and sugar. Dose, a teaspoonful to a tablespoonful, according to age.—Mfr.: Dr. Theinhardt, Cannstadt, Germ.

HYGIEA, exploited for the treatment of leucorrhea, is a solution of zinc sulphate and thymol.

HYGIOPON is an iron preparation, made electrolytically. It forms a clear greenish-yellow liquid with an acid reaction and contains, according to Bischoff, 22 per cent. of ferrous chloride, 3.6 per cent. of ferric chloride, 2.8 per cent. of sodium chloride and 6.67 per cent. of free hydrochloric acid. The preparation has apparently no advantage over a ferrous chloride solution prepared in the regular way.—Mfrs.: Berliner Electrochemische Werke, Berlin, Germ.

HYGROSCOPINE is an antiseptic poultice analogous to the official *cataplasm of kaolin* and to various other preparations of that nature on the market.

HYOS-SCO-DEINE is a nerve sedative and analgesic each 5 minims of which contain codeine ⅛ grain, hyoscyamine 3/4000 grain, scopolamine 1/500 grain, piperidine 1/2000 grain, pilocarpine 1/ 350 grain, caffeine 1/20 grain, and strychnine nitrate 1/500 grain. Dose, 5 to 30 minims hypodermically or by mouth.—Mfrs.: Combs Chem. Co., St. Louis, Mo.

HYOS-SCO-PHINE Tablets contain 1/333 grain of hyoscyamine, 1/1250 grain of scopolamine, 1/500 grain of piperidine, 1/40 grain of pilocarpine and 1/20 grain of caffeine, together with morphine sulphate in different amounts according to the serial number of the tablet. Tablet No. 10, for example, contains ¼ grain of morphine sulphate; tablet No. 11, ⅛ grain; etc. They are used in the treatment of narcotic drug addictions.—Mfrs.: Combs Chem. Co., St. Louis, Mo.

HYPERIDEAL 606 was the outcome of further investigations by Prof. Ehrlich along the lines that lead to the discovery of salvarsan. It was found to be much less toxic even than the latter, and was called for short "Hy." It is not now on the market, having been superseded by the still further perfected product neosalvarsan.

HYPEROL is a compound of hydrogen dioxide (34 per cent.) and urea (65.7 per cent.), to which is added a little citric acid (0.08 per cent.). It is marketed as a crystalline

powder and in 1-gram tablets. It is intended as a succedaneum for solution of hydrogen dioxide. Mfr.: Gideon Richter, Budapest, Hung.; agts.: Lehn & Fink, New York.

HYPNAL is the terse name for *chloral-antipyrin*, or *monochloral-antipyrin*, $CCl_3.CH.(OH)_2.C_{11}H_{12}N_2O$; colorless crystals, representing 45 per cent. of chloral hydrate and 5 per cent. of antipyrin. It is soluble in about 10 parts of water, and is used as a hypnotic and analgesic. Dose, 15 to 30 grains, one to three times daily.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

HYPNALGINE is an antipyretic and anodyne described by the makers as a coal-tar product, occurring in white, crystalline powder of slightly sweetish taste and soluble. Its chemical composition is not fully stated. Dose, 5 to 15 grains. Marketed also as 5-grain tablets and in combinations.

HYPNOACETIN is chemically *acetophenone-acetyl-para-amidophenol ether*, a condensation product of para-acetamidophenol with phenol and glacial acetic acid. It occurs as shining leaflets readily soluble in water, insoluble in alcohol, and employed as an antipyretic and hypnotic. Dose, 3 to 5 grains.

HYPODERMINE is a liquid marketed in sealed glass tubes, each of which contains 0.02 gram of sodium methylarsenate and 0.05 gram of sodium glycerophosphate. It is employed hypodermically, in certain obstinate skin and nervous affections.—Mfrs.: Pharmacie "Freyssinge," Paris, France.

HYPNONE *(acetophenone, phenyl-methylketone,* or *benzoyl-methide)*, $C_6H_5.CO.CH_3$, occurs as a colorless, oily liquid, of pungent taste, specific gravity 1.028, and soluble in alcohol, ether, chloroform, or oils; insoluble in water. It acts as a hypnotic, but is not often prescribed nowadays. Dose, 2 to 6 minims, in capsules or emulsion. It becomes crystalline on exposure to a low temperature.—(Nonproprietary.)

HYPNOVAL is a hypnotic described as being *amido-chloral broisovalerate*. Further data are wanting.

HYRGOFERMENT is a trade name for *colloidal mercury* (known on this market as *hyrgol*).

HYRGOL *(colloidal* or *soluble mercury, mercury colloid)* is a nearly black, tasteless substance, quite freely though not completely soluble in water, insoluble in alcohol or ether. It is used as a succedaneum for the mercurials internally as well as by inunction (10 per cent. ointment). Dose, ½ to ¾ grain thrice daily, in pills; children, 3 to 20 drops of a 1 per cent. solution.—Mfrs.: Chem. Fabrik von Heyden, Radebeul, Germ.; agts.: Schering & Glatz, New York.

HYSTEROL is a trade name applied to *bornyl valerianate; see bornyval* for properties, etc.—Mfrs.: G. Pohl, *Schönbaum*, Germ.

I

IALON is described as a stable preparation of colloidal silver (collargol) for internal use. It occurs as a brown liquid of a pleasant taste and containing 0.1 per cent. of collargol. Dose, a teaspoonful to a tablespoonful, according to age, four to six times a day.—Mfrs.: Chem. Fabrik Helfenberg, Helfenberg, Germ.; agts.: C. Reinschild Chem. Co., New York.

IATROL is a "combination of iodine with coal tar derivatives" introduced as a succedaneum for iodoform as a wound antiseptic; a grayish-white, odorless powder. It is said to be *oxyiodomethylanilid.*—Mfrs.: Bristol-Meyers Co., Brooklyn, N. Y.

IBIT is chemically *bismuth oxyiodotannate;* a greenish-gray, odorless, tasteless, insoluble powder, used like iodoform as a wound antiseptic.—Marketed by A. Klipstein & Co., New York.

IBOGAINE HYDROCHLORIDE, $C_{20}H_{26}N_2O_2.HCl$, is the salt of an alkaloid obtained from the root of iboga tabernanthe, an apocynea indigenous to the western coast of tropical Africa. It has been recommended by French physicians as a powerful nervine of service in neurasthenia, influenza, cardiac affections, and sleeping sickness. Dose, daily, ⅛ to ½ grain, in dragees or pills.

ICHDEN *(piscarol)* is defined as *ammonium sulphoichthyolicum Ph. Helv.*, and claimed to be analogous to ichthyol.—Mfrs.: Lüdy & Co., Burgdorf, Switzerland.

ICHTHALBIN *(ichthyol albuminate)* is a compound of ichthyol and albumin, 4 parts of which correspond to 3 parts of commercial ichthyol. It occurs as a grayish-brown, odorless, nearly tasteless powder, insoluble in the usual solvents. It is used chiefly as a succedaneum for ichthyol internally, but also as a vulnerary (pure). Dose, 10 to 30 grains two or three times daily. Marketed also as 5-grain tablets.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

ICHTHERMOL *(ichthyol-mercury, mercury sulphoichthyolate)* is a dark, odorless powder, insoluble in water and intended as a wound antiseptic as well as internal antisyphilitic. It contains 24 per cent. of mercury.—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

ICHTHOFERRIN is synonymous with *ferrichtol.*

ICHTHOFORM *(ichthyol-formaldehyde)* is a blackish-brown, almost odorless and tasteless, pulverulent, insoluble compound of ichthyol and formaldehyde, used chiefly as an intestinal disinfectant, but to a limited extent as a wound antiseptic. Dose, 15 to 30 grains three or four times a day, *in wafers or powders.* Applied externally pure or diluted *with talcum, etc.* (See caution under formaldehyde.)—

Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

ICHTHOGEN is another product stated to be analogous to *ichthyol.*

ICHTHOLDINE is Mulford's *compound glycerite of ichthyol,* an astringent and antiphlogistic, each fluid ounce of which contains ichthyol 4 grains, iodine 1 grain, liquefied phenol 4 minims, hydrastine hydrochloride 1/32 grain, boroglyceride 9 grains, and eucalyptol 1/20 minim."—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

ICHTHORCIN is a compound ointment of ichthyol and resorcin as suggested by Dr. Roswell Park, used as antipruritic and antiphlogistic dermic.—Mfrs.: Sharp & Dohme, Baltimore, Md.

ICHTHOSULFOL is an analogue of the well-known *ichthyol.*—Agt.: Julius Schmid, New York.

ICHTHYNAT *(ammonium ichthynatum)* is analogous to *ichthyol.—Mfrs.*s Heyden Chemical Works, Radebeul-Dresden (Germ.) and New York; agts.: Mallinckrodt Chem. Works, St. Louis.

ICHTHYODIN is a synonym of *isarol,* which see.

ICHTHYOL is an aqueous solution the solids of which consist largely of the ammonium salts of sulphonic acids, which latter have been prepared by sulphoning the tar-like distillate obtained from bituminous shales found near Seefeld in the Tyrol which contain the fossil remains of fishes. It is not yet completely characterized chemically. It forms a thick, brown, liquid, of bituminous odor and taste. It is completely soluble in water; incompletely soluble in alcohol or ether but nearly soluble in a mixture of equal volumes of alcohol and ether; also soluble in a mixture of equal volumes of alcohol, water and ether. It is miscible with glycerin, oils and fats. It is used mostly in skin diseases and gynecological affections, pure or in 5 to 10 per cent. ointments, paints, etc., and to a small extent also internally in phthisis, rheumatism, etc. (It produces disagreeable eructations). Dose, 3 to 30 minims three times daily, in capsules or pills. Ichthyol gives precipitates with metallic salts, acids, and alkaloidal salts, and is decomposed by alkali hydrates and carbonates, and by iodine in ointment form.—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

ICHTHYOL ALBUMINATE.—See *ichthalbin.*

ICHTHYOL-AMMONIUM is the regular *ichthyol* of the market.

ICHTHYOL-CALCIUM is marketed as "ichthyol tablets," and contains 97.5 per cent. of ichthyol-sulphonic acid and 2.5 per cent. of calcium.

ICHTHYOL-FORMALDEHYDE.—See *ichthoform.*

ICHTHYOLIDIN *(ichthyol-piperazin, piperazin sulphoichthyolate)* is a blackish-brown powder, of faint tarry odor and bitter, unpleasant taste, and almost insoluble in the usual solvents. It was introduced by Dr. F. Dorn as a

gout remedy. Dose, 15 grains three or four times daily, in 0.25 gram sugar-coated tablets (so marketed).—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

ICHTHYOL-IRON.—See *ferrichtol.*

ICHTHYOL-LITHIUM *(lithium ichthyolsulphonate or sulphoichthyolate)* is a dark-brown mass thicker than ichthyol," and used like it, but more readily made into pills than the latter.—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

ICHTHYOL-MERCURY is described under its trade name *ichthermol.*

ICHTHYOL-PIPERAZIN.—See *ichthyolidin.*

ICHTHYOL-SALICYL is the generic name for three ichthyol mixtures containing respectively 25, 33⅓, and 50 per cent. of sodium salicylate, and occurring as light-brown to dark-brown hygroscopic powders or masses not clearly soluble in water; they are used in rheumatism, tuberculosis, etc., externally and internally. Dose of 50 per cent., 15 to 30 grains per day.

ICHTHYOL-SILVER is better known as *ichthargan.*

ICHTHYOL-SODIUM *(sodium ichthyolsulphonate* or *sulphoichthyolate)* is a dark-brown mass thicker than regular ichthyol, and contains about 15 per cent. of sulphur. In action and uses are the same as those of ichthyol, but it can be made into pills more readily and is the article used in the ichthyol pills marketed.—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

ICHTHAMMON is the name adopted for a German product purporting to be identical with *ichthyol.*—Mfr.: F. Reichelt, Breslau, Germ.

ICHTHARGAN *(ichthyol-silver, silver sulphoichthyolate, silver thiohydrocarburosulphonate)* occurs as a brown, odorless, hygroscopic powder, containing about 30 per cent. of silver, and soluble in water, glycerin or diluted alcohol, but insoluble in chloroform or ether. It is used as an astringent, antiphlogistic, and bactericide, mostly in 1/5 to 5 per cent. solutions or 1 to 10 per cent. ointments, or pure. Dose, 1/24 to ¼ grain, in solution. Its solutions should be dispensed in amber-colored bottles.—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

ICHTHARGOL is another brand of *silver sulphoichthyolate,* containing 12 per cent. of metallic silver. It occurs as a brown, odorless powder, insoluble in water. It is used like ichthargan.

ICHTHYOL-ZINC is the zinc salt of ichthyolsulphonic or sulphoichthyolic acid, with properties analogous to the ammonium salt (regular ichthyol).—Mfrs.: Ichthyol Co., Hamburg, Germ.; agts.: Merck & Co., New York.

ICHTHYOPON is an *ammonium sulphoichthyolate (ichthyol) of the* Swiss Pharmacopœia.—Mfrs.: Lüdy & Cie., *Burgdorf, Switzerland.*

ICHTOSAN is another of the numerous imitations of *ichthyol.*

IODONEEN is defined by its manufacturers as an eqeous organic solution of iodine containing 1½ grains of iodine in each fluid dram. It is used as a substitute for the alkali iodides. It occurs as a dark-red, practically odorless liquid that is clearly miscible with water. Dose, 10 to 60 minims, according to age, thrice daily, in water.—Mfrs.: Iodoneen Chem. Co., Cleveland, O.

ILMESOL is a trade name for a brand of *neutral oxyquinoline sulphate*, a substance better known under the name *chinosol.*

IMIDO and ERGAMINE are two names applied to a 1:1000 solution of *betaimidoazolylethylamine*, a recently isolated proximate principle of ergot and chemically a derivative of histidine. This substance has an action resembling that of epinephrine. The solution is used hypodermically. Dose, 15 minims.—Mfrs.: F. Hoffmann-La Roche Chem. Works, Basle (Switz.) and New York.

INDOFORM *(salicyl-methylene acetate)* is obtained by the action of formaldehyde upon acetyl-salicylic acid, and occurs as a white powder, of sweetish, astringent taste, sparingly soluble in cold water. In the intestine it is said to liberate formaldehyde, and is intended for use especially in gout, rheumatism, influenza and neuralgias. Marketed as 0.5 gram tablets, 1 to 3 of which are taken thrice daily with meals. See caution under *formaldehyde.*—Mfr.: Fritz Schultz, Leipsic, Germ.

INFUNDIBULIN is another name for *pituiglandol.*

INGLUVIN is said to represent the digestive ferment of the gizzard of the domestic chicken. It is offered as a digestive and gastric sedative. It is marketed as powder and tablets.—Mfrs.: Wm. R. Warner & Co., Philadelphia, Pa., and St. Louis, Mo.

INHALONE is an inhalant of ointment consistency, and composed of phenol, eucalyptol and menthol in a petrolatum base, agreeably aromatized, and supplied in a collapsible tube with elongated tip to facilitate its introduction into the nostrils.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

INJECTION DURANTE, used in tuberculosis, is said to consist of iodine 1 part, expressed oil of almonds 90 parts, and guaiacol 9 parts.

INJECTION HIRSCH is a stable solution containing 1 per cent. of mercury oxycyanide and ½ per cent. of acoin, used as a local anesthetic.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

INSIPIN is a new, tasteless quinine, the *sulphate of quininediglycolic-acid ester.* It contains 72.2 per cent. of quinine (as against 72.8 per cent. in quinine sulphate), and occurs as a white, tasteless, crystalline powder which is *insoluble in cold* water or alcohol. Alkalies readily decompose it. *Uses* and doses are the same as of quinine sul-

phate.—Mfrs.: Boehringer & Soehne, Mannheim, Germ., Zimmer & Co., Frankfort-on-M., Germ., and Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York; agts.: the latter, as well as Merck & Co., and C. Bischoff & Co., Inc., of New York.

INTESTIN is described as a mixture of naphtalin (50), bismuth benzoate (50) and vanillin (½), that is used as an intestinal antiseptic in doses of 8 to 15 grains several times a day.—Mfrs.: Kronen-Apotheke, Berlin, Germ.

INTOLIN is a trade name for powdered beer yeast marketed by Petzoldt & Süss, Vienna, Austria.

IOCASIN is an organic compound of iodine, albumin and casein. It is intended as a substitute for the iodides internally where these are not borne well.—Mfr.: P. Weinreich, Davos-Platz, Germany.

IODALBIN is a new organic compound of iodine with blood albumin, containing about 21.6 per cent. of iodine. It occurs as a reddish-brown powder, almost tasteless and having a molasses-like odor. It is practically insoluble in water or diluted acids, but soluble with decomposition in alkaline liquids such as the intestinal secretion. It is intended to replace the alkali iodides. Dose, 5 to 15 grains. Supplied also in 5-grain capsules.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

IODALGIN is the name applied to a French odorless, water-soluble succedaneum for iodoform, containing 50 per cent of iodine.

IODALIA is a saccharated iodine-tannin compound of French manufacture. It occurs as yellow, vermiform concretions, of a faint balsamic odor and purely sweet taste, soluble in water, and containing 1.2 per cent. of iodine. It is intended for internal administration in cases of syphilis, scrofula, etc. Dose, 1 to 2 teaspoonfuls three times a day.—Mfr.: M. Peloille, Paris, France; agt.: G. J. Wallau, New York.

IODALOSE, "physiologic iodine," is a standardized solution of Galbrun's peptone iodide, 5 drops of which contain ⅙ grain of iodine combined with peptone. It is used as an alterative like potassium iodide.—Agts.: E. Fougera & Co., New York.

IODAMYL is *iodized starch.*

IODAN is defined as a solution of iodine in goose oil (adeps anserini), introduced by Dr. E. H. Shields as a readily penetrating and assimilable iodine preparation for topical as well as internal use. It is marketed in two strengths: 10 per cent., designed for external use; and 25 per cent., intended for internal use, and supplied in 5-minim and 10-minim capsules, 4 to 12 of which constitute the ordinary daily dose.—Mfrs.: Eusoma Pharm. Co., Cincinnati, O.

IODANTIPYRIN.—See *iodopyrin.*

IODARSYL is a sterile solution marketed in ampoules *each containing* a solution of 6 grains of sodium iodide and

1/64 grain of sodium para-amidophenylarsinate. It is used intravenously in syphilis.

IODERMIOL is a non-staining liquid preparation of iodine containing 5 and 10 per cent. of iodine and offered as a substitute for the official tincture.

IODEX is a non-staining and non-irritating iodine ointment containing 5 per cent. of iodine. It is said to be "made by impregnating a special combination of organic bases with iodine in a gaseous condition." It is black in color, but the color disappears on rubbing in the ointment. It is intended as a discutient. *Iodex with methyl salicylate* contains 5 per cent. of the latter and is used mainly in rheumatism.—Agts.: Menley & James, New York.

IODIL, defined as "iodine hydrate," occurs as white, odorless scales that are soluble in about 5 parts of water. It is offered as a succedaneum for the alkali iodides internally, and is given in similar doses.

IODINE SCLEROSIN is antisclerosin with 10 per cent. of sodium iodate, and is designed more especially for syphilitic atheroma of the arterial system. Dose, 2 to 4 tablets three times a day.—Mfr.: Wm. Natterer, Munich, Bavaria (Germany).

IODINE, SOLUBLE *(Burnham's)*, is described by the manufacturers as "a free iodine product for internal and hypodermic use; no alkaline salts, acids, ether, or glycerin are used in its manufacture; free iodine exists in it to the amount of 3 per cent.-plus, in addition to 2 per cent. carried in chemical combination." According to analyses made at the chemical laboratory of the American Medical Association, it is essentially "a solution of iodine in alcohol, rendered miscible with water by the presence of some iodide" [ethyl iodide?—Ed.] Dose, 5 to 60 minims.—Mfrs.: Burnham Soluble Iodine Co., Auburndale, Mass.

IODINE TRICHLORIDE, ICl_3, occurs as a yellow, volatile, deliquescent powder, of very irritating odor, and soluble in water or alcohol. It is occasionally prescribed as an antiseptic solution or as an antifermentative; externally, in 1:1000 to 1:200 solution; internally, in the dose of a teaspoonful of a 1:1000 solution. Its solution should be dispensed in dark-amber bottles.

IODINE-VASOGEN.—See under *vasogen*.

IODIPALMS are iodized fat preparations, analogous to iodipin and containing 10, 20, and 30 per cent. of iodine respectively. They are employed as succedanea for the alkali iodides—subcutaneously, internally or by enema. Dose per os (10 per cent.), 1 to 4 drams in emulsion thrice daily.

IODIPIN is an iodine addition product of the fatty acids of sesame oil containing 10 per cent. of iodine, and occurring as a thick, yellow to brownish-black oil. It is prescribed as a substitute for the alkali iodides where these are not borne well. The ordinary dose is 1 to 4 fluid drams

three or four times a day. (See also *iodipin solid.*)—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

IODIPIN 25% is iodized sesame oil containing 25-per cent. of iodine and is used hypodermically in the main, though marketed also in 30-grain capsules. Dose, 30 to 90 minims.—Mfr.: E. Merck, Darmstadt, (Germ.); agts.; Merck & Co., New York.

IODIPIN PHOSPHORIZED *(phosphorus-iodipin)* is 10 per cent. iodipin containing 0.0033 per cent. of phosphorus.

IODIPIN SOLID *(iodipin emulgate)* is a dry form of iodipin (iodized sesame oil) introduced by Dr. L. Sarason, combined with roborat. It occurs as grayish-yellow to yellowish scaly mass, which is described as tasteless, odorless and permament in air and light, and containing 40 per cent. of 25 per cent. strength iodipin (equivalent to 10 per cent. of iodine). It is intended for use as an alterative and antisyphilitic where an intensive or long-continued iodine action is desired and the alkali iodides are not well borne. Dose, 30 to 60 grains three times daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

IODIPIN VETERINARY is a cheaper product for veterinary use.

IODIPSOL is a fine, reddish-yellow powder, having a faint iodine odor, insoluble in water but easily soluble in absolute alcohol or in ether. It is designed as a wound antiseptic like iodoform.

IODIVAL is *mono-iodo-valeryl-urea*, $(CH_3)_2CH.CHI.CO.NHCONH_2$. It is a white powder which is insoluble in cold water, but soluble in hot water and alcohol. It contains 47 per cent. of iodine and is offered as a substitute for the iodides. Dose, 5 to 15 grains, as powder or 5-grain tablets.—Mfrs.: Knoll & Co., Ludwigshafen (Germ.) and New York.

IODIZED OIL ("iodöl") is an iodized olive oil containing 7.6 per cent. of iodine and recommended as a succedaneum for the alkali iodides. It is employed internally as well as subcutaneously.

IOD-METAFERRIN.—See under *metaferrin.*

IOD-METAFERROSE.—See under *metaferrin.*

IODOBENZIN seems to be growing in favor as a means of disinfecting the hands as well as the field of operation in surgery. However, as first constituted—namely, iodine 1 part, benzin 750 parts, and liquid petrolatum 250 parts—it was too irritating for certain uses. The preparation as now made has the following formula and has proved more satisfactory: iodine 1 part, benzin 1600 parts, and liquid petrolatum 400 parts.

IODOCAFFEINE is what Dr. Rumno calls *caffeine and sodium iodide;* a white, odorless, water-soluble powder containing 65 per cent. of caffeine and combining the actions of iodine and caffeine but use chiefly as a diuretic.

and cardiac stimulant. Dose, 4 to 8 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

IODOCASEIN *(casein-sodium Mulford)* is defined as a chemical compound of iodine with casein, containing approximately 18 per cent. of iodine. It is a brownish-yellow powder, practically odorless and tasteless. It is brought forward as a succedaneum for the alkali iodides.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

IODOCIN is one of the many succedanea for iodoform.—Mfrs.: Otis Clapp & Son, Inc., Boston, Mass.

IODOCITIN is a compound of iodine, lecithin and albumin, marketed in tablets each representing 1 grain of iodine and intended for use in place of the alkali iodides and as a nerve tonic. Dose, 1 to 2 tablets during or after meals.—Mfrs.: Max Haase & Co., Berlin (Germ.).

IODOCOL or *iodokol* is a compound of iodine and guaiacol that is used in phthisis, chronic bronchitis, etc., in doses of 3 to 6 grains four or five times a day.—Mfrs.: Urban & Kremers, Milwaukee, Wis.

IODOCRESINE.—See *traumatol.*

IODOCROL *(carvacrol iodide)*, $C_{12}H_{15}OI$, is analogous chemically to thymol iodide (aristol) but is made from carvacrol instead of thymol. It occurs as a light, odorless powder, soluble in ether, chloroform and oils, and is used as a substitute for iodoform.

IODO-EIGON.—See under *eigons.*

IODO-ETHYLENE is described under *diiodoform.*

IODO-EUGENOL *(eugenol iodide)* was introduced by E. Lictard as a succedaneum for aristol of more powerful disinfectant action. It forms a reddish powder, of slight eugenol odor, insoluble in water, slightly soluble in alcohol, and quite readily so in ether and fatty oils.

IODOFERRATIN is ferratin with 6 per cent. of iodine; a reddish-brown, neutral powder, which is prescribed in scrofula, rickets and other ailments in which iodine and iron are indicated. Dose, 4 to 10 grains.—Mfrs.: C. F. Boehringer & Soehne, Mannheim, Germ.; agts.: Merck & Co., New York.

IODOFERRATOSE is a 5 per cent. syrup of iodoferratin, intended to replace syrup of ferrous iodide.

IODOFORMAL as on this market is a mixture of acetanilid, thymol iodide, bismuth oxyiodide, cinchonine periodide, salol, carbolic acid, formaldehyde and boric acid; an astringent wound antiseptic.—Mfrs.: Wm. R. Warner & Co., Philadelphia, Pa., and St. Louis, Mo.

IODOFORM-CALOMEL is a mixture of equal parts of iodoform and calomel, used as a vulnerary particularly on syphilitic sores.—(Nonproprietary.)

IODOFORMIN is *iodoform-hexamethylenetetramine*, $CHI_3(CH_2)_6N_4$; a whitish powder, with a slight iodoform odor, and insoluble in water, alcohol, or ether. It contains *75 per cent.* of iodoform, which is liberated on contact with wound secretions. It is used as a wound antiseptic.

See caution under *formaldehyde*.—Mfr.: Dr. C. Marquardt, Beuel, Germ.

IODOFORMIN ETHYL IODIDE is *iodoformal*.

IODOFORMOGEN *(iodoform albuminate)* is a fine, yellow powder, smelling slightly of iodoform, of which it contains 10 per cent. combined with albumin. It is used as a dusting-powder on wounds in place of iodoform or with an equal part of boric acid as snuff in ozena.—Mfrs.: Knoll & Co., Ludwigshafen (Germ.) and New York.

IODOGALLICIN is chemically defined as *bismuth oxyiodomethylgallate*, and occurs as a light, dark-gray, odorless powder, containing about 23 per cent of iodine and 38 per cent. of bismuth, and insoluble in the usual solvents. It is intended as a drying wound antiseptic like airol.—Mfrs.: Sandoz & Co., Basle, Switzerland.

IODOGELATIN or *iodized gelatin* Bruschelli prepared with 3 parts of gelatin, 2 potassium iodide, 1⅛ iodine, 10 water, 2 sodium hypophosphite, and 2 calcium hypophosphite. It is clear, colorless liquid, recommended as a well-borne iodine compound for internal use. Dose, 15 to 60 minims several times daily.

IODOGLIDINE *(iodized glidine)* is an organic combination of iodine with the vegetable albumin glidine. It is insoluble in water, slightly acted upon by dilute acids, but soluble with decomposition in alkali solutions. It is offered as an efficient succedaneum for the alkali iodides. It is marketed only as tablets, each of which represents ¾ grain of iodine. Dose, 1 to 3 tablets three or four times a day.—Mfr.: V. Klopfer, Dresden-Leubnitz, Germ.; agts.: Menley & James, New York.

IODOGLYCEROLE is what Dr. Eugene S. Talbot, of Chicago, calls a solution consisting of water 2 parts, zinc iodide 3 parts, iodine 5 parts, and glycerin 10 parts. The article is used chiefly in the treatment of mouth infections, especially gingivitis and caries of the alveolar processes, in the place of tincture of iodine over which it is stated to have the advantages of not injuring the mucous surfaces of the mouth, possessing greater astringent power, and being more penetrating.—(Nonproprietary.)

IODOGOMENOL is a mixture of niouli oil and tincture of iodine. It is intended as an antiseptic for wounds, is said to have a strong bactericidal power and to be more stable than tincture of iodine.

IODOGLOBULIN.—See *thyglandin*.

IODO-GUAIACOL TABLETS consist of guaiacol carbonate, strontium iodide, arsenic iodide, iron and manganese peptonate, pepsin and nux vomica, and are used in phthisis. Supplied in "full" and "half" strengths. (See also *iodocol*).—Mfrs.: Fox-Brumley Pharm. Co., Denver, Colo.

IODOHEMOL or *iodized hemol* occurs as a brown, insoluble powder, containing 16 per cent. of iodine. It is used as an alterative in place of potassium iodide. Dose,

3 to 10 grains three times daily, in pills.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

IODOLE *(tetraiodo-pyrrole)*, C_4I_4NH, is one of the oldest of the modern succedanea for iodoform, and now official in the U. S. P.

IODOLE CAFFEINATED is said to be a chemical compound of iodole and caffeine, containing 74.6 per cent. of iodole and 25.4 per cent. of caffeine. It is intended for use like iodole.

IODOLECITHIN RICHTER is an iodized lecithin containing about 28 per cent. of iodine. It occurs as a dark-brown, ointment-like mass which is not soluble in water but readily soluble in oils, ether or chloroform. It is employed as an alterative, mainly in syphilis and scrofula. Dose, 2 to 8 grains three times a day, in pills.—Mfr.: Gedeon Richter, Budapest, Hungary; agts,: Lehn & Fink, New York.

IODOLECITHIN RIEDEL is an iodized lecithin containing 7 to 8 per cent. of iodine. It forms a brownish-yellow, wax-like mass resembling lecithin; readily soluble in ether and warm alcohol, swelling in water, and decomposed by alkalies. It is used chiefly in scrofula and syphilis. Dose, 3 to 10 grains.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

IODOLEN *(iodole-albumin)* is a yellowish, coarse, odorless, tasteless powder, insoluble in the usual solvents. *Iodolen externum* contains 36 per cent. of iodole, and is used as a dusting-powder on wounds. *Iodolen internum* contains 10 per cent. of iodole, and is used instead of alkali iodides. Dose, 10 to 30 grains thrice daily. Keep well-stoppered.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Lehn & Fink, New York.

IODOLIN, $C_9H_7NCH_2Cl.ICl$, results from the interaction of quinoline iodomethylate and iodine chloride in solution with hydrochloric acid. It forms a yellow powder, soluble in alcohol, insoluble in water, and is used in place of iodoform on wounds.

IODOLYSIN is a water-soluble compound of iodine and thiosinamine, employed as a discutient and marketed as *azoule* (for hypodermic use), *liquor* and *kapsol* for oral administration, and *pigmentum* and *unguentum* for local application. Dose, 3 to 6 grains.

IODOMAISIN is what Vaudin calls an iodine-albumin compound, derived from the so-called "maisin," the albumin of wheat. It forms a yellowish-white, hygroscopic, bitter, water-soluble mass. It is intended for use like the iodides, in tertiary syphilis and other diseases in which iodine is indicated. Dose, daily 1½ to 3 grains.

IODO-MANGAN is "ferromangan with 1 per cent. of iodopeptone." (Iodopeptone contains 15 per cent. of iodine.) It is used as a hematinic tonic and anticachectic, in scrofula, rickets, etc. Dose, 1 to 4 fluid drams, according to age, three times a day.—Mfrs.: Chem. Fabrik

"Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

IODOMENINE is described as an albumin and bismuth iodide compound obtained by the action of bismuth iodide on egg albumin. It occurs as a tasteless and odorless powder, containing 10 per cent. of iodine, and is not soluble in acid liquids, but readily decomposed by dilute alkaline liquids. It is intended for use as a substitute for the alkali iodides. Marketed as 0.5 gram tablets. Dose, 1 to 3. —Mfrs.: J. A. Wülfing, Berlin SW, Germ.; agts.: A. Wülfing & Co., New York.

IODOMUTH is defined as *bismuth oxyiodo-methylenedigallate* of the formula $Bi_2I_2C_{15}H_{12}O_{12}$, and occurs as a reddish-brown, fine, odorless, tasteless powder, containing about 25 per cent. of iodine. It is prescribed as a drying wound antiseptic, externally, and as an astringent internally. Dose, 5 to 30 grains. See caution under *formaldehyde*.—Mfr.: Organic Chem. Co., Fort Washington, Pa.

IODONAFTAN is an iodized naphtha product, an ointment similar to naftalan, and containing 3 per cent. of iodine. It is employed in skin diseases.

IODONE is a periodide of phthalic anhydride, $(C_6H_4C_2O_3)_3KI.I_4$. It occurs as dark-green prismatic crystals, decomposed by water and other solvents. It contains about 52 per cent. of iodine. It is not marketed in the pure state, but only as iodone *dusting-powder*, a mixture of 4 parts of iodone and 96 parts of talcum, and iodone *ointment*, liberating 2 per cent. of iodine on contact with moisture. All these preparations are offered as wound antiseptics and cicatrizants.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

IODO-NUCLEOID is a compound of iodine with a nucleoalbumin; a reddish-brown powder, of faint iodine odor and taste, insoluble in the usual solvents and acids but soluble in alkaline liquids; iodine content 21 per cent. It is used in place of the alkali iodides. Dose, 10 to 60 grains three times daily. Marketed also as 5-grain tablets.—Mfrs.: Dinet & Delfosse, Chicago, Ill.

IODOPEPTONOIDS is liquid peptonoids with 2 grains of iodine to each fluid ounce in protein combination. It is used as an alterative. Dose, 1 to 4 teaspoonfuls.—Mfrs.: Arlington Chem. Co., Yonkers, N. Y.

IODOPETROX is a product analogous to iodine-vasogen, containing 6 per cent. of iodine in petrox ("oxidized petroleum"), and used chiefly by inunction (½ to 2 drams daily) to produce iodine effects on the system.

IODOPHENIN or *iodophenacetin*, $C_{20}H_{21}I_3N_2O_4$, results from precipitating a solution of phenacetin in hydrochloric acid by means of potassium iodide. It occurs as a brown powder containing about 50 per cent. of iodine, soluble in alcohol and insoluble in water, and employed as a wound antiseptic and antirheumatic. Dose, 8 to 15 grains.—*Mfrs.: Riedel & Co.*, Berlin (Germ.) and New York.

IODOSE is "a compound of iodine (10 per cent.) with an altered nucleo-proteid"; a reddish-brown powder, insoluble in water and dilute acids but soluble in alkaline liquids such as the intestinal secretion. It is intended as a succedaneum for the alkali iodides. Dose, 5 to 20 grains, before meals. Marketed also as 3-grain and 5-grain tablets.—Mfrs.: Independent Pharmaceutical Co., Worcester, Mass.

IODOSIN is an iodine-albumin compound containing 15 per cent. of iodine, and marketed also as *solution* (0.25 per cent. I) the dose of which is 1 to 2 tablespoonfuls three times daily. It is used instead of the alkali iodides.—Mfr.: W. Hunrath, Cassel, Germ.

IODOSOLVENT is a 25 per cent. solution of iodine in a glycerin base; a colorless liquid without action on starch, and is intended particularly for subcutaneous use. —Mfr.: Dr. J. L. Marbourg, Seattle, Wash.

IODOSOLVIN is a preparation similar to iodine-vasogen, "containing 15 per cent. of iodine in oily emulsion-like form." It is used chiefly externally, but also internally. Dose, 5 to 10 drops; by inunction, 1 dram.—Mfr.: Einhorn-Apotheke, Altona, Germ.

IODOSTARIN *(diiodotarininic acid)* occurs as white, odorless and tasteless crystals that are insoluble in water, melt at about 49° C. and contain about 47.5 per cent. of iodine in organic combination. It is designed as a succedaneum for the common iodides. Dose, 4 to 12 grains. Marketed only as 4-grain tablets.—Mfrs.: Hoffmann- La Roche Chem. Works, Basle (Switzerland) and New York.

IODOSYL is an iodine compound of the formula $C_6H_3I.(OI)COOH$, and occurring as a red, nearly odorless powder, insoluble in water and slightly soluble in alcohol, chloroform or ether. It is prescribed as a wound antiseptic, in place of iodoform.—Mfrs.: Nelson, Baker & Co., Detroit Mich.

IODOTERPIN, $C_{10}H_{16}I$, is a compound of equal weights of iodine and terpin hydrate; a thick, reddish-black liquid, of faint terebinthinous odor and aromatic taste, and soluble in ether, chloroform, and alcohol, and miscible with water to yield a brownish-red liquid; specific gravity about 1.19; iodine content about 50 per cent. It is readily absorbed by the skin, and is employed as a substitute for iodoform and iodine tincture externally (as ointment, or dusting-powder with kaolin).

IODOTHEOBROMINE (Prof. Rummo) consists of 40 per cent. of theobromine, 21.6 of sodium iodide, and 38.4 of sodium salicylate. It occurs as a white powder, soluble in hot water, and used chiefly in aortic insufficiency. Dose, 5 to 10 grains two to six times daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

IODOTHYRINE (formerly *thyroiodine*) is a lactose *trituration of* the active principle of the thyroid gland. *One gram* contains 0.003 gram of iodine, the average *amount contained* in 1 gram of fresh thyroid; a whitish,

sweet, stable powder, prescribed in struma, myxedema, certain chronic skin diseases and other affections in which the thyroid gland is indicated. Dose, 15 to 30 grains daily in three doses; children, 5 to 15 grains per day. Marketed also as 5-grain tablets.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

IODOTHYROIDIN is a preparation analogous to thyroidin.

IODOTONE is described as a standardized glycerole of hydrogen iodide (hydriodic acid), each fluid dram of which represents 1 grain of iodine. Its uses are the same as those of the official syrup of hydriodic acid. Dose, ½ to 2 fluid drams.—Mfrs.: Eimer & Amend, New York.

IODOZEN is defined as a chemical combination of methyl salicylate and iodine; an amorphous powder of pleasant odor, used as an antiseptic like iodoform. Marketed also as 10-per-cent. ointment.—Mfrs.: Wm. S. Merrell Co., Cincinnati, Ohio.

IODOZOLE is said to be identical with *sozoiodole*, which see.

IODPEPTIDE is the name applied to an organic preparation of iodine prepared by peptonizing 10 grams of egg-albumin and dissolving the resulting product in 100 c.c. (mils) of water. Iodine is now introduced, and thus is obtained a faintly yellow liquid with a green fluorescence. This liquid is filled into ampoules of 5-c.c. (mils) capacity, and sterilized. The amount of iodine that enters into combination varies according to the strength of the compound to be prepared. The author has prepared three strengths of liquid: No. 1 contains 1.75 per cent. of iodine; No. 2, 2.45 per cent.; and No. 3, 3.48 per cent. Iodpeptide is put forward as an alterative. It is used hypodermically. —Mfr.: Prof. A. Cechini, Rome, Italy.

IODOTROPON.—See under *tropon*.

IODURASE is a combination of potassium iodide with levurine, marketed in keratinized capsules containing 0.5 gram of the former and 0.1 gram of levurine. It is intended as a succedaneum for the alkali iodides. Dose, 1 to 3 capsules, during meals.

IODYCHTHOL is defined as "a solution of ichthyol, iodine, hydrastis, thymol and boroglyceride," and is used as a topic antiseptic, antiphlogistic and cicatrizant, mainly in uterine and vaginal affections.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, Ohio.

IODYLIN is a light-yellow powder of faint iodine odor, chemically definable as *bismuth iodosalicylate*, and used as a drying antiseptic in surgery.—Mfrs.: Chem. Fabrik von Ostermayer, Erfurt, Germ.

IODYLOFORM is a compound of iodine with gelatin, occurring as an odorless, yellowish-brown powder containing 10 per cent. of combined iodine, and insoluble in water, alcohol or ether. It is prescribed principally as a wound-antiseptic similar to iodoform, but also internally as a

substitute for potassium iodide in doses of 3 to 15 grains.—Mfrs.: C. Kohlmeyer & Co., Berlin, Germ.

IOLIN is an oily, colorless, non-staining liquid containing 20 per cent. of iodine, and offered as a succedaneum for the official tincture of iodine.—Mfrs.: Saville Bros., Leeds, Eng.

IOSAL Elixir is an antirheumatic of which "each fluid ounce represents ammoniated tincture guaiac 96 minims, wine colchicum seed 84 minims, solution potassium arsenite 24 minims, potassium iodide 18 grains, sodium salicylate 20 grains, oil gaultheria and aromatics q. s. Dose, 1 fluid dram.—Mfrs.: Norwich Pharmacal Co., Norwich, N. Y.

IOSCORPTOL, formerly known as *sapogen*, is an iodine preparation for external use as a resolvent and discutient. It contains 10 per cent. of iodine and occurs as a thick liquid of the consistency of honey. It does not stain the skin considerably.—Mfr.: J. Schürholz, Cologne, Germ.

IRIDINOL is "a liquid preparation of iridium, representing a 6 per cent. solution"—of what salt is not stated, but probably the chloride or the double chloride of iridium and sodium. It occurs as a more or less turbid, yellowish-brown, odorless liquid of astringent taste, and is exploited as a hematic, alterative and systemic antiseptic for use in syphilis, arthritis, etc., internally, hypodermically and topically. Dose, 10 to 60 minims.—Mfrs.: P. H. Potter & Sons, New York.

IRISOL is a liquid veterinary antiseptic and disinfectant, clearly miscible with water, and used chiefly in 1 to 2 per cent. solution.—Agts.: Ernst Bischoff & Co., New York.

IRON-AMMONIUM ARSENO-CITRATE is a double salt of ferrous arsenate and ammonium citrate, containing 1.4 per cent. of arsenous acid and about 15 per cent. of iron. It forms green scales freely soluble in water, and is used chiefly in pernicious anemia and malaria of children.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

IRON ANTISCLEROSIN is antisclerosin with 10 per cent. of reduced iron. It is used chiefly in arteriosclerosis associated with anemia. Dose, 2 to 4 tablets.—Mfr.: Wm. Natterer, Munich, Germ.

IRON CACODYLATE (ferric) or *iron dimethylarsenate*, $[(CH_3)_2AsO_2]_3Fe$, occurs as a grayish-green powder, moderately soluble in water, less freely so in alcohol, and containing 32 per cent. of arsenous acid and 45 per cent. of ferric oxide. It is used subcutaneously or internally in chlorosis, lymphadenitis, etc., where both arsenic and iron are indicated. Dose, ¼ grain to 4 grains per day.—(Non-proprietary.)

IRON DIMETHYLARSENATE.—See *iron cacodylate*.

IRON GLYCERINO-ARSENATE, also known as *marsitriol*, is prescribed by French physicians as an assimilable arsenical in doses of ⅙ grain three times daily.

IRON GLYCERINOPHOSPHATE, $FePO_4C_3H_5(OH)_2 + 2H_2O$, occurs as greenish-yellow, odorless scales or powder, soluble in water or diluted alcohol, and employed in chlorosis, neurasthenia, etc., in doses of 3 to 10 grains thrice daily as pills or in solution. Its solutions do not keep long, and consequently they should be prepared in small quantities at a time and always with freshly sterilized water.—(Nonproprietary.)

IRON HYDROCYANATE is a preparation exploited as a remedy for epilepsy and other neuroses. No chemical description is published by the manufacturers, but from an analysis made in the laboratory of the American Medical Association it is concluded that "hydrocyanate of iron is essentially a mixture of approximately equal parts of prussian blue and talc, containing traces of organic matter having the general properties of alkaloids." Dose, ½ to 2 grains two or three times daily, in pills or tablets. Marketed also as tablets.—Mfrs.: Tilden Co., New Lebanon, N. Y.

IRON LACTATE *(ferrous lactate)*, of the formula $Fe(C_3H_5O_3)_2 + 3H_2O$, is official in several foreign pharmacopœias. It occurs as pale greenish-white crusts or powder, having a slight peculiar odor and a sweetish ferruginous taste. It is slowly soluble in about 40 parts of water, freely soluble in solutions of the alkali citrates, and almost insoluble in alcohol. It contains about 19 per cent. of metallic iron, and readily oxidizes on exposure. It is a mild chalybeate. Dose, 2 to 10 grains.—(Nonproprietary.)

IRON NUCLEINATE is marketed under several trade names, the best known of which is *ferrinol;* see this.

IRON-PROTYLIN.—See under *protylin.*

IRON-ROBORAT is a fine, yellowish powder which is said to consist of water 7.52 per cent., ether extractive 11.3 per cent., protein 73.88 per cent., iron 0.5 per cent., and lecithin about 4 per cent. It is intended for use in all cases where iron is indicated. Dose, 2 to 4 drams per day, in milk, soup, etc.—Mfr.: H. Niemüller Gütersloh, Germ.

IRON SOMATOSE.—See *ferro-somatose.*

IRON SUCCINATE *(ferric succinate)* occurs as a reddish-brown powder, nearly insoluble in water but soluble in acids. It is used chiefly in gallstone disease. Dose, 10 to 60 grains after meals, 10 drops of chloroform being given at the same time, four to six aimes daily.—(Nonproprietary.)

IRON SULPHOICHTHYOLATE.—See *ferrichtol.*

IRONTROPON is described under *tropon.*

IRON-VITELLIN.—See *oviferrin.*

ISAROL, formerly known as *ichthodin*, is defined as *ammonium sulphoichthyolate* Pharm Helv., and would hence appears to be analogous to ichthyol.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switzerland; agts.: A. *Klipstein & Co., New* York.

ISCHEMIN is another trade name for the 1:1000 solu-

tion of the active principle of the suprarenal capsule. See note under *epinephrine*.—Mfrs.: Armour & Co., Chicago, Ill.

ISO-BUTYL-ORTHOCRESOL IODIDE.—See *europhen*.

ISO-BUTYL PARAMIDOBENZOIC-ACID ESTER.—See *cycloform*.

ISO-NAPHTOL is *beta-naphtol*.

ISO-PHYSOSTIGMINE is an alkaloid obtained from the ether-insoluble portion of the alcoholic extract of calabar bean used in the preparation of physostigmine (eserine). It has the same chemical formula as the latter base, but is insoluble in ether; and, according to Prof. Ogiu, similar also physiologically, but more intense, rapid, and lasting in action than eserine, both in local as well as internal use—0.75 gram of iso-physostigmine corresponds to 1 gram of physostigmine. Dose of the sulphate or salicylate, 1/150 to 1/60 grain; applied as a myotic in 0.1 per cent. solution, which should be dispensed in amber bottles. Antidone, atropine.

ISOPRAL is chemically *trichlor-isopropyl alcohol*, $CCl_3.CH.(OH).CH_3$, a crystalline, volatile substance of camphoraceous odor and burning taste, and soluble in alcohol, ether or water (about 30 parts). It is prescribed as a hypnotic, in doses of 10 to 30 grains, given in solution. It should not be dispensed in paper, on account of its volatility, and it should be kept in a cool place.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

ISUTAN is described under *bismutan*.

ITROL was the name formerly applied to a certain brand of *silver citrate* then also designated as "antiseptic Credé," but it has latterly been abandoned in favor of the chemical appellation, under which it will be described in these pages.

IUBOL is the name for laxative tablets containing agar-agar and extracts of bile and pancreas.

IZAL is a natural mixture of the resin soaps and tar oils rich in cresols, obtained as a by-product in the distillation of coal. It is used as a disinfectant, like creolin. Dose (in intestinal diseases), 5 to 10 drops, in capsules.

J

JAROMA is the fanciful name applied to tablets containing 3 grains of asafetida, 1/10 grain of capsicum, and 2 grains of gypsum. The article is used as a nervine.—Mfrs.: Jaroma Co., New York.

JATREVIN is stated to be a condensation product of *menthol* and isobutyl-phenol; a clear, colorless liquid, of *peppermint*-like odor, and readily soluble in alcohol but *slightly soluble* in water or ether. It is used by *spray-inhalation* (2½ to 5 per cent. solutions) in phthisis and

respiratory catarrhs.—Mfr.: Ernst Jäckel, Berlin, Germ.

JEQUIRITOL is a sterilized, standardized preparation of jequirity seed introduced by Prof. Roemer for use in certain chronic eye diseases in which jequirity infusion was formerly employed. It contains 50 per cent, of glycerin, and is marketed in four strengths: Nos. 1, 2, 3, 4. *Jequiritol serum* is an antitoxin prepared in accordance with Behring's principles, and said to be capable of promptly arresting the action of jequiritol, for which purpose it is solely used.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

JODALBACID, JODIPIN, and other "jod" derivatives.—See under *I.*

JODKRESOL,—See *traumatol.*

JOHA is described as an oily solution of salvarsan, and marketed in ampoules holding 1 and 3 grams, respectively. The former contain 0.4 gram, the latter 1.2 gram of salvarsan, besides iodipin and sterilized, anhydrous wool-fat. The article is used hypodermically, and as it is solid at ordinary temperatures, the ampoule is to be immersed in hot water until its contents are sufficiently liquid to be drawn up into a thin canula.—Mfr.: Dr. Kade, Berlin S. O., Germ.

JOHIMBINE.—See *yohimbine.*

JUGLANDIN is a resinoid from the root bark of juglans cinerea (butternut), occurring as a grayish-white powder insoluble in water and only slightly soluble in alcohol. It is used as a mild laxative and antiperiodic, in doses of 2 to 5 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

K

KALAGUA EXTRACT is said to be prepared from a South American plant. It has a garlicky odor and taste, and has been introduced as a remedy in phthisis. It is marketed only as pills; dose, 1 to 4 three times daily.—Agts.: McKesson & Robbins, New York.

KALENDOL is an astringent and antiseptic dusting-powder said to represent calendula, ichthyol, iodine, acetanilid and boric acid. It is soluble in water or glycerin or in a mixture of alcohol and water but insoluble in pure alcohol, ether, or oils.—Mfrs.: Norwich Pharmacal Co., Norwich, N. Y.

KALMOPYRIN is a trade name for *calcium acetylsalicylate* as marketed by Gideon Richter, Budapest, Hung.; agts.: Lehn & Fink, New York.

KAOLIN *(bolus alba)*, aside from its use as a basis of the official cataplasm of kaolin and as an absorbent dusting-powder, has latterly been used also internally in *Asiatic cholera* and other acute infectious diarrheas. For *adults 2 to 4 ounces*, and for children ½ to 2 ounces, are

stirred into water and administered in the course of a day in small portions at a time every twenty or thirty minutes. The treatment is preceded by a fast of twenty-four hours.

KASAGRA is a trade name for a fluid extract of cascara sagrada, rendered palatable by the use of carminatives and aromatics.—Mfrs.: F. Stearns & Co., Detroit, Mich.

KASUCOLUM is one of the many trade names latterly applied to *potassium sulpho-guaiacolate* (guaiacol sulphonate), best known in this country by the name *thiocol*.—Mfrs.: Fritz-Petzoldt & Süss, Vienna, Austria.

KAWA-SANDAL.—See *gonosan*.

KELENE is a brand of the official *ethyl chloride*, marketed in automatic tubes and used as a local as well as a general anesthetic. It is also furnished in various combinations (cocaine, formaldehyde, etc.) designated as "autosprays."—Mfrs.: Fries Bros., New York; agts.: Merck & Co., New York.

KELENE-METHYL is a mixture of compressed ethyl chloride and methyl chloride, used as a local anesthetic.

KINAZYME is prepared from extract of spleen, enterokinase and other enzymes and hormones of the duodenum, also pancreatic extract, trypsin and ⅛ grain of calcium lactate to each tablet. It is employed as a general tonic in tuberculosis, malaria, etc. Dose, 2 to 4 tablets immediately after meals.—Mfrs.: G. W. Carnrick Co., New York.

KINEURIN is a trade name for *quinine glycerinophosphate*.

KREALBIN and some other remedies whose names are often spelled with a "K," see under *C*.

KRESAMINE *(ethylenediamine-trikresol; kresolamine; trikresolamine; ethylenediaminecresol)* is a clear, alkaline, watery solution containing 25 per cent. each of ethylenediamine and trikresol, of carbolic odor, and soluble in all proportions in glycerin, up to about 20 per cent. in water, but insoluble in petrolatum. It is used as an antiseptic and bactericide in tubreculosis by inhalation (25 to 35 per cent. solutions), in skin diseases (4 to 20 per cent. ointments), wounds (½ to 1½ per cent. lotions), etc. Exposure darkens the article.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

KRESAPOL or *kresosaponate* is a disinfectant corresponding to *liquor cresoli compositus* U. S. P.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

KRESEPTOL is a disinfectant and antiseptic solution "containing 50 per cent. of pure, redistilled mixed cresols—ortho-, meta-, and para-, obtained from coal tar." It is evidently similar to the pharmacopœial *solution cresol compound*.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

KRESO is a coal-tar product consisting largely of cresols and the higher phenols, and hence analogous to creolin. It is used in the same strengths as carbolic acid as a dis-

infectant, deodorant and parasiticide. It is marketed also as a "dip" for parasitic diseases of animals.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

KRESOLAMINE.—See *kresamine*.

KRESOPHEN is a nearly colorless wood-tar of pleasant odor, introduced as a succedaneum for coal-tar in skin diseases.—Mfrs.: Chem. Fabrik Electron, Biebrich-on-Rh., Germ.

KRESOSOLVIN was formerly known as *creolin Ahrens*, in contradistinction to creolin Pearson, the article generally known on this market simply as creolin. See *creolin*. —Mfrs.: F. Ahrens & Co., Altona-Ottensen, Germ.

KRESOSTERIL is defined as pure metacresol oxalic-acid ester, or *metacresol oxalate*, and contains theoretically 70 per cent. of metacresol and 30 per cent. of oxalic acid. It melts at 50° C., and on contact with water it readily decomposes into its components. It dissolves in about 33 parts of water. It is marketed only in tablets colored blue, and is used for the preparation of antiseptic and disinfectant solutions.

KRESULFOL is a cresolsulphonic acid obtained by mixing 2 volumes of crude cresol with 1 volume of crude sulphuric acid. It is employed as a general disinfectant, in 3-per-cent. aqueous solution.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

KRETOL is defined as "a chemical combination produced by the dry distillation of a peculiar kind of coal; an alkaline carbolate; a pure coal-tar creosote from which all naphtha products have been removed." It occurs as a dark-brown liquid having a strong tarry odor and yielding a milky mixture with water. In physical as well as in therapeutical properties it resembles *creolin*.—Mfrs.: Kretol Co., Washington, D. C.

KRYOFINE, *methoxy-acet-para-phenetidin*, $CH_3OCH_2.CONH.C_6H_4.OC_2H_5$, is a condensation product of paraphenetidin and methylglycolic acid; fine, colorless, odorless, tasteless crystals, freely soluble in alcohol, ether or fixed oils, and sparingly so in cold water (600). It is prescribed as an anodyne and antipyretic. Dose, 4 to 7½ grains. Marketed also as tablets of these sizes.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switzerland; agts.: C. Bischoff & Co., Inc., New York.

KRYOGENIN.—See *cryogenine*.

KRYSYL is a disinfectant of the type of *creolin*, forming a milky emulsion with water. It is used mostly in 1 to 2 per cent. solutions. It is marketed in two grades: one for use as a general disinfectant and deodorant; the other, *surgical krysyl*, for employment in surgery.—Mfrs.: Baiss Bros. & Stevenson, London, Eng.

KUGLOIDS is the terse name applied to capsules each of which contains quinine glycerophosphate ½ grain, creosote benzoate 1 grain, eucalyptol benzoate ½ grain, and excipient *q. s.* The name is derived from that of the author

of the formula, Dr. Kügler, of Paris.—Mfrs.: Anglo-Amer. Pharm. Co., New York; agts.: E. Fougera & Co., New York.

K—Y is a lubricating jelly for the use of surgeons, obstetricians and gynecologists. It is marketed only in collapsible tubes.—Mfrs.: Van Horn & Sawtell, New York.

L

LABORDINE is advertised to physicians as having the following composition: "Apium graveolens (true active principle) 35⅜; gaultheria fragrantissima 25⅛; acete-amide-phenyle 15⅛; quinia 1⅛; benzoylsulphyonic imide 23¼." The average of the reports of analysis made at the chemical laboratory of the American Medical Association shows that "labordine contains acetanilid 37.9 per cent.; free salicylic acid 6.9; quinine present; saccharin not found; corn starch present; milk sugar 34.7 per cent." It is exploited as an antipyretic and analgesic. Dose, 5 to 15 grains.—Mfrs.: Labordine Pharmacal Co., St. Louis, Mo.

LACTAGOL is a dry extract of cottonseed; a fine, yellowish-white powder, insoluble in water but forming a sort of emulsion therewith. It was introduced by Dr. B. Beckman, of Hamburg, as a galactagogue. Dose, a heaping teaspoonful three or four times daily, in milk.—Mfrs.: W. Pearson & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

LACTALBUMIN *(albulactin)* is one of the two proteids in milk, the other being casein. It is maintained that human milk contains a comparatively large percentage of lactalbumin, while cow's milk contains only a small quantity; hence, when cow's milk is diluted, the already existing deficiency in lactalbumin is increased, and which ought to be made up by the mechanical addition of lactalbumin in the modification of cow's milk for infant feeding. The article occurs as a grayish-white powder of a non-pronounced peculiar taste and soluble in water and aqueous liquids. Usually about 8 grains are added to bottle of food.—Mfrs.: Bauer Chem. Co., New York.

LACTIC ACID BACILLARY TABLETS are said to be made from a practically pure culture of the bacillus bulgaricus, and are designed for use in intestinal fermentation. Dose, 1 or 2. They should be kept in a cool place, and not be used after the date given on the label.—Mfrs.: Fairchild Bros. & Foster, New York.

LACTAMPOULE is defined as a pure culture of bacillus bulgaricus, put up in ampoules holding about 12 c.c. It is used for souring milk, and therapeutically for direct application in fermentative processes. The ampoules should be kept in a cool place, and are not good beyond the *date stamped* on the labels.—Mfrs.: Fairchild Bros. & *Foster, New* York.

LACTOBACILLINE is the generic name adopted for

several lactic bacilli preparations originated by Prof. E. Metchnikoff, of the Pasteur Institute, Paris, and which are credited with antizymotic and antisuppurative power. The *liquid* has latterly also been used in diabetes. The *tablets*, too, are for internal use. *Lactobacilline S* is employed topically in hay-fever, nasal catarrh, etc., and surgically. The *paste* and *powder* forms serve for application to suppurative surfaces.—Mfrs.: Ferment Co., New York; agts.: Franco-Amer. Ferment Co., New York.

LACTOBACILLINE MILK FERMENT is a liquid preparation for making scientifically soured milk, and *lactobacilline milk tablets* serve the same purpose.—Mfrs.: Ferment Co., New York; agts.: Borden's Condensed Milk Co., New York.

LACTOCORDIN is a fanciful brand name for *solution hydrogen dioxide*.

LACTOIODINE and LACTOJOD.—See *proiodine*.

LACTOL *(lactonaphtol)* is the lactic acid ester of beta-naphtol, of the formula $CH_3CH.OH.COO.C_{10}H_7$. It forms colorless crystals that are soluble in alcohol but insoluble in water, and is used as an intestinal antiseptic particularly in children in daily quantities of about 15 grains.

LACTONE TABLETS *(buttermilk tablets)* contain a culture of lactic acid bacilli, 1 tablet converting 1 quart of milk into buttermilk within 36 to 48 hours under proper conditions.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

LACTOPEPTINE, offered as a digestive powder, is said to consist essentially of a mixture of 240 parts of milk sugar, 48 parts of pepsin, 36 parts of pancreatin, 3 parts of diastase, 4 parts of 25-per-cent. hydrochloric acid, and 4 parts of lactic acid. According to analyses made in the laboratories of the American Medical Association, it consists essentially of pepsin about 10 per cent., lactic acid 3 per cent., and milk sugar 87 per cent. Dose, 20 to 30 grains. *Lactopeptine elixir* contains 38 grains of lactopeptine in each fluid ounce.—Mfrs.: New York Pharm. Ass'n, Yonkers, N. Y.

LACTOPHENIN *(lactyl-para-phenetidin)*, $C_{11}H_{15}O_3$, differs chemically from phenacetin only in having a lactic acid in place of the acetic acid constituent. It occurs as colorless, odorless, slightly bitter crystals soluble in 8.5 parts of alcohol and in 330 parts of water, and decomposed by acids or alkalies. It is an antipyretic and analgesic. Dose, 8 to 15 grains. Marketed also in 0.5 and 0.25 gram tablets.—Mfrs.: C. F. Boehringer & Soehne, Mannheim, Germ.; agts.: Merck & Co., New York.

LACTOSANTAL is the trade name adopted for *santalol lactate* or the lactic acid ester of santalol. It contains about 73 per cent. of santalol, and is employed as an antigonorrheal and a bronchial anticatarrhal. It is marketed only in capsules containing 0.25 gram (4 minims), the dose of which is one every hour or ten to fifteen daily.—

Mfr.: Vial, of Paris, France; agts.: E. Fougera & Co., New York.

LACTOSERUM.—See under *serum*.

LACTOSERVE is a buttermilk conserve, consisting of dried milk impregnated with pure cultures of the lactic acid bacillus. Stirred with 5 parts of boiling water, it is said to furnish a drink very similar to fresh buttermilk.—Mfrs.: C. F. Boehringer & Soehne, Mannheim, Germ.; agts.: Merck & Co., New York.

LACTO-SOMATOSE (milk-somatose) is a compound of tannin with milk albumoses, occurring as a yellowish, tasteless, almost odorless powder soluble in water but insoluble in alcohol, and containing 5 per cent. of tannic acid. It is used as a food, especially in children with intestinal diseases. Dose (child), 1 to 2 teaspoonfuls per day.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

LANAGEN and LANAIN are brands of *adeps lanæ hydrosus*.

LANUM is a brand of *hydrous wool fat* marketed by Merck & Co., New York.

LARGIN *(protalbin-silver)* occurs as a gray powder containing 11 per cent. of silver and soluble in 10 parts of water, also soluble in glycerin but insoluble in alcohol. It is prescribed as an astringent and bactericide in ¼ to 5 per cent. solutions. Internally it is occasionally prescribed in gastric or intestinal ulceration. Dose, 5 to 8 grains, in pills. Its solution should be dispensed in dark-amber bottles.—Marketed by Merck & Co., New York.

LARICIN is a synonym of *agaricin;* see under this title.

LATTA'S SERUM.—See serum, Latta's.

LAVALUM is an antiseptic and astringent wash containing "zinc phenolsulphonate 10 per cent., alum compound 15 per cent., ichthyol 0.1 per cent., thymol 0.5 per cent., eucalyptol 0.2 per cent., and oil gaultheria 0.5 per cent."—Mfrs.: Norwich Pharmacal Co., Norwich, N. Y.

LAVISOL is "a limpid, reddish-brown, oily liquid, readily miscible with water and other solvents; a saponaceous antiseptic for all branches of surgery." It is apparrently analogous to the official *solution cresol compound*.—Marketed by C. Bischoff & Co., Inc., New York.

LAXALITHIA is a granual, noneffervescent combination of laxative salines with lithium. Each teaspoonful represents lithium citrate 5 grains, sodium sulphate 60 grains, sodium chloride 3½ grains, and sodium citrate q. s.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

LAXANIN is an aromatized castor oil chocolate-tablet containing also 1½ grains of phenolphthalein.—Mfr.: Dr. R. Reiss, Charlottenburg, Berlin.

LAXAPHEN is a laxative containing in each fluid ounce *8 grains of* phenolphthalein in chocolate-flavored syrup *and ⅝ grain* of salicylic acid (as preservative). Dose,

2 to 4 fluid drams.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

LAXAROME is described as a mixture of three volumes of aromatic fluidextract of cascara and one volume of compound solution of sodium phosphate (aromatized). It is a laxative. Dose, ½ to 1 fluid dram.—Mfrs.: Sharp & Dohme, Baltimore, Md.

LAXATOLINE is the name applied to a 2-grain tablet of phenolphthalein.—Mfrs.: Physicians' Supply Co., Pittsburgh, Pa.

LAXINE is a laxative tablet containing as its active ingredient phenolphthalein 2 grains.—Mfrs.: Columbus Pharmacal Co., Columbus, Ohio.

LAXOIN is the trade name adopted for 1 and 2 grain chocolate tablets of phenolphthalein.—Mfrs.: Oppenheimer, Son & Co., London EC, Eng.

LAXOL is castor oil containing a little saccharin and peppermint oil.—Mfr.: A. J. White, New York.

LECIBRIN is a combination of brain lecithin 33⅓ per cent. with nucleo-proteins. It is put up in gelatin-coated "pepules each containing 3 grains, the equivalent of 1/25 grain of elementary phosphorus." Nerve-reconstructive live lecithin. Dose, 1 to 3 pepules.—Mfrs.: Fairchild Bros. & Foster, New York.

LECISAN OIL is a nutritive preparation said to contain lecithin 10 parts, vitellin 28 parts, maltose 5 parts, and lactose 57 parts.

LECITHAN is the name given by a Swiss firm to its *lecithin*.—Mfrs.: Blattmann & Co., Wädenswiel, Switzerland.

LECITHIN is a phosphorus constituent of animal and vegetable tissues, more especially of nerve substance and yolk of egg. That on the market is made from egg yolk and is hence known also as *ovilecithin;* a yellow, waxy, hygroscopic mass, soluble in alcohol, chloroform, ether and fatty oils, and swelling up but not dissolving in water. It is used as a nerve tonic. Dose, 1 to 2 grains three times daily, in pills, before meals; subcutaneously, 15 to 45 minims of 5-per-cent. solution in olive oil.—(Nonproprietary.)

LECITHIN-ALBUMIN or LECITHIN ALBUMINATE.—See *letalbin*.

LECITHIN COMPOUND is a nervine each tablespoonful of which contains 1 grain each of lecithin, calcium glycerophosphate and potassium glycerophosphate, and 1/10 grain of sodium cacodylate.—Mfrs.: Otis Clapp & Son, Inc., Boston, Mass.

LECITHIN GLYCEROLE *(glycerite lecithin)* is a solution of lecithin in glycerin containing in each 100 c.c. 1.6 grams of lecithin. It is prescribed as a nerve nutrient and rebuilder. Dose, 1 fluid dram, before meals.—Mfrs.: Fairchild Bros. & Foster, New York.

LECITHOL is an emulsion-like solution of lecithin *containing 1 grain of* lecithin from hog's brain in each tea-

spoonful and 18 per cent. of alcohol by volume. It is an opalescent yellow liquid of pleasant taste and odor. Dose, 1 to 2 fluid drams.—Mfrs.: Armour & Co., Chicago, Ill.

LECITHOL RIEDEL is *lecithin* as made by Riedel & Co., Berlin (Germ.) and New York.

LENICET is a polymerized form of aluminum acetate occurring as a fine white powder of faint acidulous odor and representing 30 per cent. of aluminum oxide. It is intended as a dry substitute for the well-known solution of aluminum acetate. It is marketed also as *dusting-powder* (containing 10, 20 and 50 per cent. of lenicet, respectively), *ointment* (10 per cent.), and *cream*, as well as in the form of *perulenicet* (containing 10 per cent. of balsam of peru), which latter is supplied also as dusting-powder and compresses.—Mfr.: Dr. R. Reiss, Berlin N, Germ.

LENIGALLOL *(pyrogallol triacetate, triacetylpyrogallol)*, $C_{13}H_{12}O_6$, occurs as a white powder insoluble in water and incompatible with alkalies, strong acids or oxidizing agents. It is used as a mild substitute for pyrogallic acid (pyrogallol) in skin diseases, chiefly chronic eczema, to be applied in 5 to 10 per cent. ointments or pastes.—Mfrs.: Knoll & Co., Ludwigshafen (Germ.) and New York.

LENIRENIN is said to contain lenicet, freshly precipitated and dried aluminum hydroxide, cocaine, and extract of the suprarenal glands. It is used as a styptic on bleeding wounds.—Mfr.: Dr. R. Reiss, Berlin, Germ.

LENTAMINE is an alkaloid derived from lentana brasiliensis, and occurs as a white, odorless, very bitter powder which is soluble in alcohol but almost insoluble in water. It is employed as an intestinal antiseptic. Dose, 10 to 20 grains.

LENTIN is a trade name applied to *meta-phenylenediamine hydrochloride*, recently recommended as an antidiarrheal in children. See this title.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

LEONTIN is "an aromatized liquid containing in pleasant form 1 per cent. of the isolated glycoside derived from the root of blue cohosh." It is used as an emmenagogue. Dose, 5 to 30 minims.—Mfrs.: Lloyd Bros., Cincinnati, O.

LEPINE is a French antiseptic solution containing mercuric chloride, carbolic, salicylic and benzoic acids, calcium chloride, bromine, chloroform and quinine hydrobromide.

LETALBIN *(lecith-albumin* or *lecithin albuminate)* occurs as a yellow, stable powder containing 25 to 33 per cent. of lecithin. It is used as a nerve nutrient and reconstructive. Dose, 5 to 10 grains three times daily—Mfrs.: Blattmann & Cie, Wädenswiel, Switzerland.

LEUCOFERMENTIN is an animal serum the antiferment content of which has been increased so as to make it correspond to that of normal human blood. It is used *locally in* the treatment of inflammatory processes where *suppurative* or fermentative destruction of tissue is to be

arrested.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

LEVULO-CHLORAL is described as being a compound of levulose and chloral that is soluble in water and in alcohol, and has hypnotic action. Dose, 2 to 10 grains; maximum dose, 15 grains.

LEVULOSE *(fructose; fruit sugar; diabetin)*, $C_6H_{12}O_6$, is prepared from invert sugar, and occurs as a colorless, odorless, slightly hygroscopic, crystalline powder, readily soluble in water and in diluted alcohol. It is a sweetening agent especially intended for diabetic subjects. Dose, 3 drams to 2 ounces per day.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

LEVURETIN is a powdered, dried beer-yeast recommended by Dr. Goliner in diabetes, furunculosis, and chronic eczema, internally. Dose, a teaspoonful three times a day, before meals, in water.—Mfr.: E. Feigel, Lutterbach, Germ.

LEVURINE is another dried yeast prepared specially for medicinal purposes, and used like the preceding article.

LEVURINOSE is a beer-yeast that has been dried in a current of cold air. It is used internally like levuretin, in diabetes, furunculosis, chronic eczema, etc. Dose, a teaspoonful three times a day.—Mfrs.: J. Blaes & Co., Lindau, Germ.

LIANTHRAL *(extractum olei lithranthracis)* is defined as "coal tar purified from its insoluble constituents but retaining its soluble and volatile ingredients," a benzol extract of coal tar, used in skin diseases in place of the older liquor and tinctura lithanthracis, in the form of ointment, tincture, soap, paste, etc.—Mfrs.: P. Beiersdorf & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

LIASOL *(ammonium sulpho-liasolate)* is another preparation reputed to be analogous to ichthyol.—Mfr.: Apoth. Haas, Reutlingen, Würtenberg, Germany.

LIBANOL is the ethereal *oil of cedrus atlantica*, of agreeable odor and taste, soluble in alcohol and insoluble in water. It is used in chronic catarrhs of the respiratory tract, as well as in gonorrhea and cystitis. Dose, 15 to 30 minims three times daily, in capsules.—Mfrs.: Schimmel & Co., Miltitz, Germ.; agts.: Fritzsche Bros., New York.

LIBRADOL is a plasma based upon the old formula of compound lobelia powder (dracontium, sanguinaria, cephaelis, melaleuca, lobelia, lourus, capsicum and tobacco). It is used as a topical anodyne, spread on parchment paper or directly upon the skin, in lumbago, neuralgia, etc.—Mfrs.: Lloyd Bros., Cincinnati, Ohio.

LINADIN is a dry extract of the spleen, occurring as a dark-brown, almost odorless powder of marked codliver oil taste, containing about 1 per cent. of iron and 0.023 per cent. of iodine, and insoluble in water. It is prescribed *in anemia, scrofula*, enlarged spleen, etc. Dose, 1 to 3

tablets (only so marketed).—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

LINCTUS COMPOUND is an expectorant and cough-sedative mixture each fluid ounce of which contains diacetylmorphine ⅛ grain, chloroform 2 minims, wine of ipecac 20 minims, dilute phosphoric acid 16 minims, and tincture of squill 20 minims. The ordinary dose is 1 fluid dram.—Mfrs.: Sharp & Dohme, Baltimore, Md.

LINIMENTUM CARRAGHENI is described by Wille as an unctuous mass soluble in water, prepared from Irish moss, and intended to serve as a substitute for vaselin and oil as a vehicle for antiseptics and other drugs.—Mfrs.: Aegidien-Apotheke, Braunschweig, Germ.

LINOVAL is an ointment-base containing, according to the manufacturer, 93 per cent. of petrolatum, 5 per cent. of the fatty acid of linseed oil, 1 per cent. of ammonia, and 1 per cent. of lavender oil as perfume. It is said to take up 15 per cent. of water and to be permanent provided it is not heated to its melting-point, 31° C. Hence all additions should be made only by cold incorporation.—Mfr.: Richard Schmidt, Altona, Germ.

LIPOIODIN is the trade name adopted for *diiodobrassidinic-acid ethyl ester* of the formula $C_{21}H_{39}I_2.COOC_2H_5$. It occurs as white, odorless, tasteless needles melting at 37° C., insoluble in water, sparingly soluble in alcohol, and readily soluble in fatty oils and ether. Its solutions must be protected against sunlight. It contains 41 per cent. of iodine, and is intended for use as a succedaneum for the alkali iodides. Dose, 5 to 15 grains. Marketed only in 5-grain tablets.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switzerland; agts.: A. Klipstein & Co., New York.

LIPIODOL and LIPOBROMOL are iodized and brominized oils, containing respectively 40 per cent. of iodine and 33⅓ per cent. of bromine organically combined. Lipiodol is specially intended for subcutaneous use where a pronounced iodine effect is desired. Lipobromol is a pale-yellow liquid soluble in ether or chloroform but insoluble in alcohol or water. It is intended as a substitute per os and hypodermically for potassium bromide, 2 parts being the equivalent of 1 part of the latter. Dose, 15 to 60 grains.

LIQUAT, first known as *liqual*, is a preparation of aluminum acetate and hydrogen dioxide which is used in solution as a disinfectant and astringent.—Mfr.: Dr. R. Reiss, Berlin, Germ.

LIQUENZYME is "an elixir of the digestive ferments each teaspoonful of which will digest 3,000 grains of coagulated egg albumin when tested according to the directions given in the U. S. P. (eighth revision) for the valuation of pepsin. One teaspoonful added to one quart of lukewarm milk will produce a firm curd in fifteen to twenty minutes." Dose, 1 or 2 teaspoonfuls shortly before meals, or *three or four* times a day after meals in indigestion.—*Mfrs.: John* Wyeth & Bro., Philadelphia, Pa.

LIQUID PEPTONOIDS, an emergency nutrient, is said to contain protein 5.25 per cent., and carbohydrate from beef, milk and wheat 13.8 per cent., physiologically predigested, in a menstruum containing 18 per cent. of alcohol by volume. Dose, a tablespoonful three to six times daily. *Liquid peptonoids with creosote* contains 2 minims of creosote and 1 minim of guaiacol to the tablespoonful.—Mfrs.: Arlington Chem. Co., Yonkers, N. Y.

LIQUOR AMMONII ERGOTINICI is a clear, brown liquid 1 c.c. of which contains 0.3 gram of ammonium ergotinate (equivalent to 3 grams of ergot). It is used for the same purposes as ergot, internally or subcutaneously. Dose, 10 to 30 minims.

LIQUOR THYREOIDEÆ CONSERVATUS is defined as a stable liquid preparation of the thyroid gland of animals which have been treated for some time with potassium iodide or some other iodine compound. Six cubic centimeters represent one thyroid gland. It is used in goiter, obesity, myxedema, etc. Dose, 3 drops three times daily, gradually increased.—Mfr.: Dr. Marpmann, Leipsic, Germ.

LITHION DIURETIN is theobromine-lithium and lithium salicylate, or, as it is commonly designated, *theobromine and lithium salicylate;* see this.

LITHIUM ACETYLSALICYLATE is described under its trade name, *hydropyrin.*

LITHIUM AGARICINATE is a white powder readily soluble in water, and administered in doses of 1½ to 3 grains at bedtime to arrest phthisical night-sweats.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

LITHIUM ARRHENAL is *lithium monomethylarsenate,* and forms very deliquescent crystals soluble in water. It is used as an alterative and relatively non-toxic arsenical like the corresponding sodium salt (arrhenal). Dose, 1 to 3 grains twice daily, with meals, in water or as pills.

LITHIUM AND CAFFEINE SULPHONATE.—See *symphorol L.*

LITHIUM GLYCERINOPHOSPHATE *(glycerophosphate* or *phosphoglycedite)* has the formula $Li_2PO_4C_3H_5(OH)_2$ and occurs as a white powder readily soluble in water. It is used chiefly in gout associated with nervous weakness. Dose, 5 to 15 grains three times daily, as powders, syrup, or solution. Its liquid preparations do not keep but a few days; they should be prepared with sterile water, and in small quantities at a time.—(Nonproprietary.)

LITHIUM-MERCURY IODIDE.—See *mercuricide.*

LITHIUM QUINATE *(chinate)* is described under its trade name, *urosin.*

LITHIUM VANADATE *(lithium meta-vanadate),* $LiVO_3$ occurs as a yellowish powder, soluble in water. It has been used in gout—1/15 grain per day every two or three days, in water.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

LITHOS is the trade name adopted for Mulford's com-

pound tablets of lithium and sodium salicylate, each of which represents 4 grains of "combined lithium citrate and tartrate, with ½ grain of sodium salicylate." The article is employed as an antipodagric and antirheumatic.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

LIVER DRIED *(hepar siccatum)* represents five times its weight of the fresh ox liver. It is used in cirrhosis of the liver and Banti's disease. Dose, 1 dram three or four times a day.—(Nonproprietary.)

LLYOD'S ERGOT is designed especially for subcutaneous use. "From it are excluded the inorganic salts, the fats and the oil." It is employed in the same doses as the fluidextract; latterly also called *subculoyd of ergot.*—Mfrs.: Lloyd Bros., Cincinnati, O.

LOCOSEMIN is a local anesthetic, apparently identical with *eusemin.*

LODAL is defined as the *hydrochloride of dimethoxymethyl-dihydro-isoquinoline*, an oxidation product of laudanosine (an alkaloid from opium). It is prescribed as a uterine hemostatic. Dose, 1 to 3 grains three or four times daily. Marketed also as 1-grain *tabloids.*—Mfrs.: Burroughs, Wellcome & Co., London (Eng.) and New York.

LOZON is a brand of *solution hydrogen dioxide.*

LUBRASEPTIC is a jelly prepared from Irish moss, containing 2 per cent. of boric acid and 0.067 per cent. of formaldehyde. It occurs as a colorless, transparent jelly almost completely soluble in water. It is used mainly as an antiseptic lubricant for the fingers or for surgical instruments; it is also used as a dressing for burns and slight cutaneous lesions.—Mfrs.: Russell & Lawrie, Tarrytown, N. Y.

LUESAN *(mercuroglidine)* is an organic compound of mercury with the wheat protein glidine, marketed as tablets, each representing ⅙ grain of metallic mercury. It is offered as a succedaneum for mercuric chloride and the usual mercurials as an antiluetic. Dose, 1 to 3 tablets three times a day.—Mfr.: Dr. V. Klopper, Dresden-Leubnitz, Germ.; agts.: Menley & James, New York.

LUMINAL is the trade name adopted for *phenyl-ethyl-barbituric acid*, a substance differing from veronal by having one of the two ethyl groups in the latter replaced by a phenyl group. It occurs as a white, odorless, slightly bitter powder, which melts at 170° to 172° C., is almost insoluble in water but is soluble in alcohol, chloroform or ether as well as in alkali solutions. Its action is that of a hypnotic and nerve sedative. Dose, 5 to 10 grains. Marketed also as 5-grain tablets.—Mfrs.: E. Merck, Darmstadt, Germ., and Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York; agts.: Merck & Co., and Farbenfabriken of Elberfeld Co., New York.

LUMINAL-SODIUM, the sodium salt of the preceding, is a *readily* soluble, hygroscopic salt, intended for subcutaneous or rectal use as a hypnotic.

gram of the dried yellow substance of cows' ovaries." The article is used in certain female complaints. Dose, 1 to 3 tablets three times daily.—Mfr.: Dr. Henschke, Breslau, Germany.

LYCETOL is *dimethyl-piperazin tartrate* $(C_2H_4)_2(NCH_3)_2.C_4H_6O_6$. It occurs as a white, odorless, slightly hygroscopic powder of pleasant, acidulous taste, and readily soluble in water. It is incompatible with alkalies. It was introduced as a substitute for piperazin in gout and gravel. Dose, 4 to 8 grains four times a day in carbonated water, sweetened if desired.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

LYMPH-ORCHITIC FLUID COMPOUND is an organotherapeutic preparation for use in impotence, presenility, neurasthenia, etc. It is also known as Roberts-Hawley Lymph Compound.—Mfrs.: Animal Therapy Co., Chicago, Ill.

LYSARGINE is a new trade name for *colloidal silver*, which preparation is better known on this market by the name of *collargol*. It occurs as steel-gray, shining scales, readily and quickly soluble in water. It is used just like collargol.—Mfrs.: Kalle & Co., Biebrich, Germ.

LYSIDIN *(amidine; ethylene-ethenyldiamine hydrochloride)*, $C_4H_8N_2.HCl$, occurs as a bright-red crystalline mass which is very hygroscopic, has a mousy odor, and is readily soluble in water or alcohol, but insoluble in ether. It is marketed only in 50 per cent. solution, a pinkish-yellow liquid which is claimed to be a uric acid solvent. Dose, 30 to 150 minims per day, in carbonated water. Incompatible with mercuric chloride and iodide, and ferric chloride.—Mfrs.: Farwerke, Hoechst-on-M., Germ.; agts.: V. Koechel & Co., New York.

LYSITOL is an analogue of *lysol* and thus similar to the official *liquor cresolis compositus*.—Mfr.: J. L. Roessler, Prague, Austria.

LYSOFORM is essentially a solution of a potash soap impregnated with formaldehyde, known on this market as *veroform*, which see.

LYSOL is a proprietary analogue of the official *compound solution of cresol*. *Lysol pills* (Dr. Zinsser's) contain in each pill 0.1 gram of lysol with ferrous lactate.—Mfrs.: Schülke & Mayr, Hamburg, Germ.: agts.: Lehn & Fink, New York.

LYSOLVEOL is another article similar to U. S. P. *solution of cresol compound*.

LYSOPAST is a brown, transparent, soft mass, consisting of 90 per cent. of lysol and 10 per cent. of a neutral soap.—Mfr.: C. F. Hausmann, St. Galen, Switzerland.

LYSULFOL is defined as a compound of lysol containing 10 per cent. of sulphur; a thick, black liquid, completely soluble in water. It is employed in skin diseases.—Mfrs.: *Schülke & Mayr*, Hamburg, Germ.; agts.: *Lehn & Fink, New York.*

LYTHOL is a liquid antiseptic the active ingredients of which are eucalyptol, thymol, oil of wintergreen, and borates. It is used from full strength down to 1:6 dilution. —Mfrs.: Hudson & Co., New York.

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MAGNESIUM CACODYLATE, an arsenical compound, said to be comparatively non-toxic, occurs as a white powder soluble in water. It is used chiefly subcutaneously— 8 to 15 minims of a 5 per cent. solution daily.—(Nonproprietary.)

LUTEIN is the name applied to "tablets containing 0.3

MAGNESIUM DIOXIDE.—See *magnesium peroxide*.

MAGNESIUM PERHYDROL is a brand name for *magnesium peroxide* (dioxide) as made by E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

MAGNESIUM PEROXIDE as marketed is not the pure and simple chemical MgO_2, but a mixture of peroxide 15 to 25 parts with magnesium oxide 75 to 85 parts. It occurs as an odorless, white powder insoluble in the ordinary organic solvents. On contact with water it is gradually decomposed into hydrogen dioxide and magnesium hydroxide, the former being further decomposed by the latter with liberation of oxygen. Dilute acids decompose it with formation of a solution containing hydrogen dioxide. It is used medicinally as an oxidizing disinfectant and antizymotic in gastrointestinal fermentation, and in large doses as a laxative; furthermore, it serves as an oxygen producing ingredient of tooth powders and tooth pastes. It is marketed by various firms under special trade names. Dose, 5 to 10 grains; as a laxative, ½ teaspoonful.

MAGNESIUM SULPHITE, $MgSO_3+6H_2O$, occurs as a white crystalline powder, soluble in about 30 parts of water. It is used as an antizymotic and disinfectant in dysentery and other infectious diarrheas; it has no pronounced disagreeable taste, and is therefore deemed preferable to sodium sulphite. Dose, 15 to 30 grains every two hours; children 3 to 8 grains, in sweetened solution.— (Nonproprietary.)

MAGNODAT is a trade name for *magnesium peroxide* as marketed by Chem. Fabrik, Coswig, Germ.

MAIZOLE is a 50-per cent. emulsion of corn oil, proposed as a substitute for cod-liver oil.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

MALAKIN is *salicyl-para-phenetidin*, $C_6H_4(OC_2H_5)N{:}CH.C_6H_4.OH+H_2O$, a condensation product of salicylic aldehyde and para-phenetidin. It forms fine, yellow needles, insoluble in water, slightly soluble in alcohol, and quite *freely* soluble in solutions of alkali carbonates. It is an *antipyretic* and antineuralgic; also a tænifuge. Dose, 8 to *15 grains* several times daily.—Mfrs.: Gesellschaft für

Chem. Industrie, Basle, Switzerland; agts.: Meyer Bros. Drug Co., St. Louis, Mo.

MALLEIN (Dr. Foth) is a glanders serum used as a diagnostic of glanders in horses. It is marketed in liquid as well as dry form. Dose, of liquid, 1 c.c. per injection; of dry, ½ to ¾ grain.—Mfrs.: Serum-Gesellschaft, Landsberg, Germany.

MALONAL is another trade name for diethylbarbituric acid or malonylurea, an article better known as *veronal*, which see.—Mfrs.: Fritz-Petzoldt & Süss, Vienna, Austria.

MALOUREA is identical with *veronal (malonylurea)*.

MALT-ALBUMIN ("Malz-Eiweiss") is what Dr. Klopfer calls a nutritive prepared from wheat flour and barley malt according to a patented process. It is said to contain about 34 per cent. of albumin, 2 per cent. of nutritive salts, 46 per cent. of soluble maltodextrin and 18 per cent. of converted starch. It is taken with milk, soup, etc., in quantities of 2 to 4 spoonfuls.—Mfrs.: Chem. Fabrik Dr. Klopfer, Dresden-Leubnitz (Germ.); agts.: Menley & James, New York.

MALT-GLIDINE, barley malt with glidine (wheat protein) is said to contain 37 per cent. of vegetable protein, 34 per cent. of maltose, 18 per cent. of fat, 6 per cent. of lecithin and 5 per cent. of phosphoric acid with cereal salts. It occurs as a light-yellowish powder, and is used as a tonic food and nerve nutrient. Dose, 1 dessertspoonful three times a day, with foods; it should not be cooked. —Mfrs.: Menley & James, New York.

MALTROPON is referred to under *tropon*.

MALTYL is a brand of *dried malt extract*.—Mfr.: Gehe & Co., Dresden, Germ.

MALTZYME is, according to the Chemical Laboratory of the American Medical Association, a preparation essentially equivalent to the official extract of malt and containing 7 per cent. of alcohol. It is marketed plain and in various medicamentous combinations.—Mfrs.: Malt Diastase Co., New York.

MAMMALA is a milk powder for infants' use simply diluted with water for each feeding.—Mfrs.: Schieffelin & Co., New York.

MAMMARY GLAND DRIED is used in the treatment of profuse and painful menstruation and of uterine and ovarian tumors. Dose, 2 to 5 grains three times daily.

MAMMIN is described as a preparation of the mammary gland which is free from the so-called precipitins but contains all the active constituents of the gland. It is used in tablet form or subcutaneously. Dose, 8 grains.

MANGANESE GLYCERINOPHOSPHATE, $MnPO_4C_3H_5(OH)_2+H_2O$, is a yellowish-white powder, soluble in water and employed in the same dose and for the same purposes as iron glycerinophosphate.—(Nonproprietary.)

MANKA *Capsules* (Dr. Hirsch) contain oil sandalwood, *arbutin and ethereal* extract of buchu. They are used in

gonorrhea, cystitis and prostatitis.—Mfrs.: Strauss-Apokeeke, Berlin C, Germany.

MANNIN is the name selected for a substance claimed to be identical with *orthoform*.

MANOLA is exploited as a tonic and restorative. According to analyses made in the laboratory of the American Medical Association, it is essentially wine fortified with alcohol and a slight percentage of medicinal substances added.—Mfrs.: Manola Co., St. Louis, Mo.

MANUFORM is a formaldehyde-soap cream intended for use by surgeons and obstetricians as a disinfectant of the hands.—Mfrs.: Simon's Apotheke, Berlin C, Germany.

MARACH, also known as *Denver mud*, is a sterliized, antiseptic poultice material, analogous to the official cataplasm of kaolin.—Mfrs.: Germicide Co., Denever, Colo.

MARKASOL is defined as *bismuth borophenate* of the formula $Bi_2O_3B(C_6H_5)(CO_3)_3H_2O$. It occurs as a white powder smelling strongly of camphor and having a burning taste. It is intended chiefly as a surgical antiseptic instead of iodoform.—Mfrs.: Kress & Owens Co., New York.

MARSITRIOL is a trade name for *iron glycerinoarsenate;* which see.

MARSYLE is a French trade name for *iron cacodylate;* see the latter.—Mfrs.: F. Gomar Fils & Co., Paris, France.

MASSOGRAN is a milk-curdling powder that owes its activity to the presence of cultures of the lactic acid bacillus.—Mfrs.: A. H. Cox & Co., Brighton, Eng.

MASSOLIN is a culture of the bacillus bulgaricus of Massol. It is said to prevent the growth of pathogenic germs and putrefactive organisms. It is used topically in suppurative conditions, chronic nasal catarrh, atrophic rhinitis, etc.—Mfrs.: Lederle Antitoxin Laboratories, New York; agts.: Schieffelin & Co., New York.

MECONARCEINE is what Laborde calls a substance obtained from opium, free from morphine and soluble in water. It is used as an anodyne. Dose, 1/10 to ⅓ grain. Marketed in solution put up in hermetically sealed tubes and containing camphor as a preservative.

MEDINAL is the trade name for a brand of *sodium diethylbarbiturate;* the mono-sodium salt of veronal (diethyl-barbituric acid). It is fully described under its chemical name.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering and Glatz, New York.

MELACHOL *(liquor sodii phosphatis et nitratis compositus)* is a compound solution of sodium phosphate, each fluid dram of which contains 65 grains total of sodium phosphate, sodium nitrate and citric acid. It is a laxative. Dose, 1 to 2 fluid drams.—Mfrs.: Melachol Pharm. Co., St. Louis, Mo.

MELICEDIN consists of acid strontium citrate 48.92 per cent., acid sodium citrate 21.66 per cent., glycerin 23.45 per cent. and water 5.97 per cent. It occurs as a white powder having a sweet-sour taste and a slightly acid reaction. It

is used in diabetes. Dose, a teaspoonful.—Mfr.: J. E. Stroschein, Berlin, Germ.; agts.: General Drug Co., New York.

MELIGRIN is described by the manufacturers as being obtained by the condensation of dimethyloxyquinizine with methylphenylacetamide. It occurs as a white, microcrystalline powder of bitter, somewhat pungent taste, freely holuble in water, and melting at 105° C. It is intended as a succedaneum for migrainin and other antineuralgics of the antipyrin class.—Mfrs.: Hoeckert & Michalowsky, Berlin, Germ.

MELIOFORM is a liquid disinfectant consisting of 25 per cent. of formaldehyde solution, 15 per cent. of aluminium acetate, and a number of indifferent substances. For use, it is diluted with 250 volumes of water, that is, a teaspoonful is added to a quart of water.—Mfrs.: Lüthi & Buhtz, Berlin, Germ.

MELUBRIN (*Ehrlich's 844*) is an antipyretic and antirheumatic defined as *sodium phenyldimethylpyrazalon-amido-methylsulphonate*, or *sodium antipyrin-amido-methanesulphonate*. It occurs as a fine powder soluble in an equal part of water and almost insoluble in the remaining organic solvents. Dose, 8 to 20 grains. Marketed only as 8-grain tablets.—Mfrs.: Meister, Lucius & Brüning, Hoechst-on-M. (Germ.); agts.: Victor Koechl & Co., New York.

MENINGOCOCCUS SERUM is an antitoxic serum derived from the blood of horses immunized against cerebrospinal meningitis by means of injections of cultures of the diplococcus intracellularis, which micro-organism is considered the cause of the disease in question. Experiments have proved the efficiency of the serum in animals. The addition of sodium nucleinate considerably enhances the immunizing power of the serum. Tests on human beings, it is stated, have been encouraging though too limited in number as yet to permit of formulating a definite opinion. The serum seems to possess a remarkable agglutinizing effect on the blood-serum of patients afflicted with meningitis, whereby it is possible to differentiate genuine and spurious diplococci.—(Nonproprietary.)

MENTHOL ETHYLGLYCOLATE.—See *coryfin*.

MENTHOL-IODOLE is a mixture of 1 part of menthol and 99 parts of iodole, used principally in throat affections and ozena, by insufflation.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Lehn & Fink, New York.

MENTHOL VALERINATE.—See *validol*.

MENTHOPHENOL is a compound resulting from heat in 1 part of carbolic acid with 3 parts of menthol, and accurring as a clear liquid of aromatic odor and taste, almost insoluble in water or glycerin, freely soluble in alcohol, chloroform or ether, and readily taking up iodine, *iodoform or aristol*. It is used as an antiseptic and anal-

gesic locally, either pure or in 3 to 5 per cent. mixture with warm water.—(Nonproprietary.)

MENTHOPHENOL-COCAINE (Bonain) is obtained by melting together equal parts of crystallized carbolic acid and menthol at a moderate heat and then incorporating an equal part of cocaine hydrochloride. It is a powerful local anesthetic and dental anodyne.

MENTHOROL *(menthosol)* is para-chlorphenol with menthol (added as a corrigent of taste and odor), which is used in 5 to 15 per cent. solution in glycerin as a paint in laryngeal tuberculosis.—Mfrs.: Von Heyden Chem. Works, Radebeul (Germ.) and New York.

MENTHOXOL is a 3 per cent. hydrogen peroxide solution containing 1 per cent. of menthol and about 33 per cent. of alcohol, and used in 5 to 10 per cent. solution as a gargle in inflammatory throat troubles. In cold weather the menthol is liable to crystallize out; warming the solution dissolves it again.—Mfr.: C. Raspe, Weissensee near Berlin, Germ.; agts.: C. Bischoff & Co., Inc., New York.

MENTHYPHEN is a liquid antiseptic, stimulant and expectorant for use in throat and bronchial affections, each fluid ounce of which represents phenol 2 grains, thymol, menthol, oil gaultheria, sanguinarine nitrate, and lobeline sulphate, of each 1/12 grain, in glycerite of elm bark.—Mfr.: Wm. S. Merrell Chem. Co., Cincinnati, O.

MERCAURO is a solution of the bromides of mercury, gold and arsenic, used as antisyphilitic and alterative. Each 10 drops contain 1/32 grain each of the bromides of arsenic, gold and mercury.—Mfrs.: Parmele Pharm. Co., New York.

MERCINOL is a "gray oil" consisting of mercury 4 parts, anhydrous wool-fat 2 parts and oil dericin 6.5 parts. It is used in syphilis, in conjunction with joha.—Mfrs.: Engel-Apotheke, Breslau, Germ.

MERCOLINT *(mercurlint)* is a cotton fabric impregnated with 90 per cent. of mercurial ointment, worn over the chest in syphilis. Apron No. 1 contains 10, No. II 25, and No. III 50 grams of mercury.—Mfrs.: P. Beiersdorf & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

MERCOQUINOL *(merochinol)* is *mercury oxyquinoline-sulphonate*, a heavy, yellow powder soluble in about 25 parts of water and containing 30 per cent. of mercury. It is intended for use in syphilis internally, subcutaneously or externally.—Mfrs.: Fr. Fritsche & Co., Hamburg, Germ.; agts.: Parmele Pharm. Co., New York.

MERCURAN is a 50 per cent. mercury ointment made with a specially prepared goose oil and containing 1 per cent. of carbolic acid as a preservative. It is intended for the inunction treatment of syphilis, and, according to Dr. E. H. Shields, is rapidly absorbed through the skin, and *less irritating* than similar preparations. It is supplied in *soft gelatin* capsules containing 4 grams, which quantity

constitutes the inunctionary dose.—Mfrs.: Eusoma Pharm. Co., Cincinnati, O.

MERCURCOLLOID *(mercury colloid)* is a soft ointment of blackish-gray color and aromatic odor, containing 10 per cent. of colloidal metallic mercury. It is intended for external and internal use, in place of blue ointment or blue pill. Dose, per os, 2 to 5 grains three times daily, as pills made with aluminium hydrate (marketed also as such). Mercurcolloid should not be confounded with colloidal mercury (hyrgol).—Mfr.: O. Ebel, Berlin, Germ.

MERCURETTES are oblong blocks of cacao butter containing 30 grains of mercury each and designed for the inunction treatment of syphilis.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

MERCURICIDE *(lithium-mercury iodide)* is a double salt containing 34 per cent. of Hg, 65 of I, and 1 of Li, freely soluble in water, not precipitated by fixed alkalies, hence not decomposed by the blood, and claimed to be a stronger germicide than the older mercuric salts in general yet less toxic (because it contains less mercury.)—Mfrs.: Smith, Kline & French, Philadelphia, Pa.

MERCURIFORM is a compound of a mercuric salt with hexamethylenamine, containing about 65 per cent. of mercury. It is soluble in 1000 parts of water, and its solutions do not precipitate albumin. It is a germicide, analogous to mercuric chloride. Marketed only as an ointment, for ophthalmic use.—Mfrs.: Nelson, Baker & Co., Detroit, Mich.

MERCUROGLIDINE is marketed under the trade name *luesan*, which see.

MERCURO-IODO-HEMOL *(mercuro-iodized hemol)* is a brown powder containing 12.35 per cent. of mercury and 28.6 per cent. of iodine, with hemol. It is prescribed in syphilis accompanied by anemia or scrofula. Dose, ½ to 2 grains, three times a day, usually in pills, sometimes given subcutaneously.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

MERCUROL *(mercury nucleide, mercury nucleinate)* is an organic compound of mercury, with nucleinic acid from yeast, and forms a brown powder containing 10 per cent. of mercury, and soluble in water, but insoluble in alcohol. It is an antipurulent, astringent and alterative. Dose, ½ to 2 grains three times a day. Applied in ½ to 5 per cent. solutions or ointments.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

MERCURY AMIDOPHENYLARSINATE.—See *mercury atoxylate.*

MERCURY ANILINATE, $Hg(C_6H_4NH_2)_2$, occurs as a white, colorless, tasteless powder, containing 52 per cent. of Hg, and insoluble in water. It is employed in syphilis—by inunction, in 30 to 35 per cent. ointments; by intramuscular injection, rubbed up with vaselin oil; as ½ to 3 per cent. ointment on wounds; and internally ¼ to ½ grain

three times a day, in pills.—Mfr.: W. K. Ferrein, Moscow, Russia.

MERCURY ATOXYLATE *(atoxyl-mercury)* is described as "the acid mercury salt of atoxylic acid, containing 23.7 per cent. of arsenic and 31.8 per cent. of mercury. It is a white powder, practically insoluble in water, contains no water of crystallization, and shows a slightly pinkish tinge when heated to 100° C. Its solutions do not precipitate albumin." It is employed mainly as an antisyphilitic by intramuscular injection, suspended in olive oil, liquid petrolatum or other oleaginous vehicle. Dose, ¾ to 1½ grains, twice a week.—Mfrs.: Vereinigte Chem. Werke, Berlin, Germ.; agts.: Victor Koechl & Co., New York.

MERCURY CACODYLATE *(mercuric cacodylate* or *methyl-arsenate)*, $[(CH_3)_2AsO_2]_2Hg$, occurs as a white hygroscopic, crystalline powder, soluble in water, and used by intramuscular injection in syphilis. Dose, ½ to 1 grain daily.—(Nonproprietary.)

MERCURY, COLLOIDAL or SOLUBLE.—See *hyrgol.*

MERCURY DIBROMIDE, $HgBr_2$, has recently been introduced for hypodermic and internal use in syphilis. It is sparingly soluble in water, alcohol or ether; hot water decomposes it. For subcutaneous use a solution is made of 1 grain of the dibromide and 0.6 grain of sodium bromide, the latter serving to increase the solubility of the mercury salt and render its solution sterilizable without decomposition.—(Nonproprietary.)

MERCURY FORMAMIDE SOLUTION contains the salt $Hg(HCONH)_2$, besides some free formamide, 1 c.c. contains an amount of mercury equivalent to 0.01 gram of mercuric chloride. It is used hypodermically in syphilis, 15 minims every other day.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

MERCURY GALLATE, $Hg[C_6H_2(OH)_3CO_2]_2$, forms a grayish-brown powder, containing 37 per cent. of mercury, insoluble in water, but soluble in solutions of the alkalies. It is prescribed as an antisyphilitic. Dose, 1 to 3 grains per day, in pills with extract of cinchona.—(Nonproprietary.)

MERCURY-GLIDIN is brought forward as an antisyphilitic. It is marketed in the form of tablets each of which contain 1/12 grain of metallic mercury in organic combination.—Mfr.: Dr. Klopfer, Dresden, Germ.; agts.: Menley & James, New York.

MERCURY IMIDOSUCCINATE.—See *mercury succinimide.*

MERCURY IODOCACODYLATE is obtained in solution by dissolving 1 gram of mercury cacodylate and 2 grams of cacodylic acid in 75 grams of distilled water, adding a solution of 1 gram of sodium iodide in 3 grams of distilled water, neutralizing with dilute soda solution, and adding distilled water to make 100 grams. This liquid is said to be stable and sterilizable, and is used by injection in

syphilis—1 to 2 c.c. daily or every other day. Keep from light.

MERCURY IODOOXYBENZOLPARASULPHONATE.—See *anogon.*

MERCURY NUCLEATE.—See *mercurol.*

MERCURY OXYCYANIDE, $HgO.Hg(CN)_2$, is obtained by dissolving the mercury oxide freshly precipitated from 10 grams of mercuric chloride, and 9.5 grams of mercury cyanide in 100 grams of water. It forms a white or faintly yellow powder, soluble in water. It is used as an antiseptic. It is applied in 0.2 to 2 per cent. solution.—(Nonproprietary.)

MERCURY OXYQUINOLINESULPHONATE.—See *mercoquinol.*

MERCURY PARAMINOPHENYLARSINATE.—See *aspirochyl.*

MERCURY PARA-PHENOLSULPHONATE is *hydrargyrol.*

MERCURY SALICYLARSINATE is referred to under *enesol.*

MERCURY SALICYLATE, $HgC_7H_4O_3$, is a white powder containing about 59 per cent. of mercury, and soluble in solution of sodium chloride or alkalies, insoluble in water or alcohol. It is used in syphilis and gonorrhea. Dose, ⅛ to 1 grain; applied to ulcers, etc., in 1 per cent. ointment or powder; injected in gonorrhea in 1:300 suspension every second or third day.—(Nonproprietary.)

MERCURY SOZOIODOLATE.—See *sozoiodole-mercury.*

MERCURY SUCCINIMIDE *(mercury imidosuccinate),* $Hg(C_4H_4NO_2)_2$, occurs as a white powder, soluble in about 75 parts of water, slightly soluble in alcohol. It has been recommended as an agreeable antisyphilitic by injection—⅛ to ½ grain daily in 1 per cent. solution. It may be given by mouth in doses of ⅛ to ¼ grain three times daily.—(Nonproprietary.)

MERCURY SULPHOICHTHYOLATE is described under *ichthermol.*

MERGAL is a mixture of "mercuric cholate, $Hg(C_{24}H_{39}O_5)_2$, one part, and tannin albuminate two parts." It occurs as a greenish-yellow powder of bitter taste, practically insoluble in water but more readily soluble in alkali solutions. It is offered as an antisyphilitic. Two and a fourth grains of it equal in mercury content 5/22 grain of corrosive sublimate. Marketed as 2¼ grain capsules; dose, 1 to 3 three or four times daily.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

MERIODIN is another trade name for *mercury diiodoparaphenolsulphonate,* also known as *sozoiodole-mercury,* and marketed as tablets each containing 0.0083 Gm. of the substance (equivalent to 0.0025 Gm. of mercury).—Mfr.: H. Trommsdorff, Aix-la-Chapelle, Germ.; agts.: Mallinckrodt *Chem. Works,* St. Louis, Mo.

MESOTAN is the trade name for salicylic acid methyl-

oxymethyl ester or *methyloxymethyl salicylate*, $C_6H_4.OH.COO.CH_2OCH_3$, which occurs as a clear, yellow fluid of aromatic odor, specific gravity 1.2, only slightly soluble in water, but miscible with alcohol, ether, chloroform and fatty oils. It is used in the main locally in articular and muscular rheumatism, 30 minims, mixed with the same quantity of olive oil, being lightly applied two or three times a day. It is speedily absorbed. After four days its use is generally suspended for a day or two, on account of its irritant action on the skin.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

METABIASES is the generic name adopted by a French firm for what it describes as "pure, metallic ferments"—gold, silver, platinum and palladium, intended for use by injection in infectious diseases, such as articular rheumatism, pneumonia, scarlet fever, etc.—Mfrs.: Max Frères, Paris, France.

METACETONE is referred to under *diethylketone*.

METACRESYL ACETATE.—See *cresatin*.

METAFERRIN is a compound of phosphorus, iron and albumin, containing 10 per cent. of phosphoric acid and 10 per cent. of iron. It is used as a chalybeate tonic. Dose, 8 grains. *Arsen-metaferrin* is the same with the addition of 0.1 per cent. of arsenic. *Iod-metaferrin* contains 7½ per cent. each of iodine and iron and 8 per cent. of phosphoric acid. Marketed only as 4-grain tablets. *Metaferrose* is an aromatized solution of metaferrin; *arsen-metaferrose* the latter with 0.004 per cent. of arsenic; *iod-metaferrose* is metaferrose with 0.3 per cent. of iodine.—Mfr.: Dr. Walther Wolff & Co., Elberfeld, Germ.

META-PHENYLENEDIAMINE *(meta-diamidobenzene)* HYDROCHLORIDE, $C_6H_4(NH_2)_2.2HCl$, also known as *lentin*, was heretofore used only as a test for nitrates and for technical purposes. Latterly Dr. Unverricht uses it as an antidiarrheal. Dose, 1½ grains three times daily; children, ⅛ to 1 grain.—(Nonproprietary.)

METASOL.—See under *anytin*.

METHACETIN *(acetanisidin, para-oxymethylacetanilid)*, $C_6H_4.OCH_3.NH.COCH_3$, occurs as colorless and odorless crystals, readily soluble in alcohol but sparingly soluble in water. It is used as an antipyretic and antineuralgic. Dose, 5 to 10 grains.—(Nonproprietary.)

METHAFORM is a trade name for *chlorbutanol*, which see.—Mfrs.: F. Stearns & Co., Detroit, Mich.

METHARSINATE is a French trade name for *disodium methylarsenate* (not sodium dimethylarsenate or cacodylate).—Mfrs.: Clin & Co., Paris, France; agts.: E. Fougera & Co., New York.

METHENYL TRIBROMIDE is a synonym of *bromoform*.

METHETHYL is a mixture of ethyl chloride and methyl *chloride*, employed as a local anesthetic.—Mfr.: Dr. G. F. *Henning*, Berlin, Germ.

METHOZINE is a synonym of antipyrin.

METHYL-ACETANILID or *methyl-phenylacetamide*, is described under its trade name, *exalgin*.

METHYL ACETYLSALICYLATE, also known by the trade names *methyl-aspirin* and *methyl-rhodine*, has the formula $C_6H_4|COOCH_3.OCOCH_3$. It is methyl salicylate in which an H atom has been replaced by an acetyl group. It forms colorless crystals that are soluble in alcohol, ether, glycerin and fatty oils, but are insoluble in water; alkalies decompose it. It is an antirheumatic, analgesic and antiseptic, like salicylic acid. Dose, single, 8 to 15 grains; daily, 75 to 120 grains.

METHYLATROPINE BROMIDE.—See *atropine methyl-bromide*.

METHYL CHLORIDE *(chloro-methane)*, CH_3Cl, is a gas of ethereal odor, obtained by distilling methyl alcohol, salt and sulphuric acid. It is marketed only compressed to a liquid in metallic cylinders, and is employed as a local anesthetic in neuralgias, etc., as a spray.—(Nonproprietary.)

METHYL-GLYCOCHOLIC-ACID-PHENETIDID is a chemical designation for *kryofine*.

METHYLOIDS are capsules each containing methylene blue 1 grain, oil of santal 1½ minims, copaiba 1½ minims, haarlem oil 1¼ minims, and cinnamon oil ½ minim. They are used as a urinary anticatarrhal and antiseptic.—Mfrs.: F. Stearns & Co., Detroit, Mich.

METHYL-PROPYL-CARBINOL URETHANE, or *methyl-propyl-carbinol carbamic-acid ester*, is marketed as *hedonal*, which see.

METHYL-RHODIN is a French trade name adopted for *methyl acetylsalicylate*, which see.

METHYLSULFONAL is the name given to *trional* (sulphonethylmethane U. S. P.) in the German Pharmacopœia.

METHYL-XANTHINE, METHYL-XANTHINE AND SODIUM ACETATE and METHYL-XANTHINE AND SODIUM SALICYLATE are facsimiles respectively of *theobromine*, *agurin* and *diuretin*.—Mfr.: J. Wolfenberg, Basle, Switzerland.

METHYLENE BLUE is an anilin product which is used as an antimalarial and a urinary disinfectant, and to a very limited extent also as an analgesic (subcutaneously). It is official under the title *methylthionine hydrochloride*. Care should be taken to dispense only the *medicinal* grade; the ordinary dye contains zinc and arsenic, and is not fit for medicinal use.

METHYLENE-DIGUAIACOL is known by several trade names: *geoform*, *guaiaform*, and *pulmoform*. It occurs as a yellow, tasteless powder, with a faint vanilla-like odor; soluble in alcohol, insoluble in water. It is used in consumption chiefly. Dose, 5 to 10 grains three or four times a day, as powders. See caution under formaldehyde.

METHYLENE-DIGUAIACOL BENZOIC ACID ESTER is the chemical designation for *guaialin*.

METHYLENE-DIGUAIACOL CAMPHORIC ACID ESTER is marketed and here described under the name *camphacol*.

METHYLENE-DITANNIN is *tannoform*.

METHYLENE GUAIACOLACETYLATE is the appellation adopted for a brand of the product heretofore known only as *euguform*.. See caution regarding methylene compounds under formaldehyde.

METHYLENE-HIPPURIC ACID, $C_6H_5CO.N.(CH_2)_2CO.O$, is intended as a urinary disinfectant and uric acid solvent; it readily splits off formaldehyde.—(Nonproprietary.)

METHYLETS are soluble gelatin pearls containing methylene blue 1 grain, santal oil 1½ minims, copaiba 1½ minims, oil of cinnamon ½ minim. Antigonorrheal. Dose, 1 or 2 pearls three or four times daily.—Mfr.: Sharp & Dohme, Baltimore, Md.

METRAMINE is a brand name for *hexamethylenamine*.

METROGLYCERIN is defined as a supposedly sterile liquid, containing 10 per cent. of glycerin, 2 per cent. of gelatin, and minimal quantities of resin acid esters. It is used by intrauterine injection as a uterine contractor and hemostatic. Tetanus germs may exist in gelatin and are difficult to destroy. Imperfectly sterilized solutions have in hypodermic use caused fatal infection, and there may be risk from uterine or rectal injection also—Mfrs.: Chem-Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

MICROCIDIN is a trade name for *sodium betanaphtolate*, which is used as a surgical disinfectant in 3 to 5 per cent. solution.

MIDOL is a secret headache remedy in tablet form, now being advertised extensively to the public. According to analyses in the chemical laboratory of the American Medical Association, the tablets (weighing on the average about 6.4 grains) contain as their therapeutically active ingredient about 80 per cent. of pyramidon, together with a small quantity of caffeine.—General Drug Co., New York.

MIDY'S MIXTURE is described as a solution of 0.05 gram of subcutin (anesthesin sulphocarbolate), 0.1 gram of mercury biniodide, 0.1 gram of sodium iodide, 0.02 gram of sodium chloride, and distilled water to make 100 c.c.

MIGRAININ, also called *phenazone-caffeine citrate*, is a mixture consisting according to an analysis made at the chemical laboratory of the American Medical Association of antipyrin (phenazone) 90.97 per cent., the balance being moisture. It occurs as a white, crystalline powder, soluble in water and alcohol. It is used in migraine, headaches, *neuralgias*, etc. Dose, 15 grains in water; other liquids *should be* avoided.—Mfrs.: Farbwerke, Hoechst-on-M., *Germ.*; agts.: V. Koechl & Co., New York.

MIGRANOL is a headache embrocation consisting essentially of a 10 per cent. solution of menthol in acetic ether, to which 4 per cent. of spirit of ammonia and a little camphor and perfume oils are added.—Mfr.: L. Stottmeister, Leipsic R, Germ.

MIGROL is said to consist of equal parts of sodium-pyrocatechin acetate (guajacetin) and caffeine-pyrocatechin acetate. It is prescribed in migraine, headache, and the like. Dose, 8 grains once to three times daily.—Mfrs.: Drs. v. Gember & Fehlhaber, Weissensee, Germ.; agts.: Fuerst Bros., New York.

MIGROPHEN is the trade name given to a compound of lecithin and quinine. The article is but slightly bitter, and is said to be comparatively free from the by-effects of quinine. Dose, 4 to 10 grains.—Mfrs.: "Sicco," Berlin, Germ.

MIN-ALA is an American natural, sparkling, laxative water from springs at Mineral Wells, Texas. It is said to contain in each gallon sodium sulphate 196.64 grains, sodium chloride 19.38 grains, calcium sulphate 32.3 grains, magnesium sulphate 21.77 grains, silica 8.32 grains, and carbonic acid 30 grains. Dose, a glassful three to twelve times daily. *Min-ala tablet split* is an effervescent tablet made from the salts of the water and each representing a tumblerful of the water. The *salts* are also marketed, as well as a *tooth-paste*, *salve*, *residue oil* and *soap*. Marketed by Standard Mineral Water Co., Mineral Wells, Texas, and New York.

MOLYFORM is a molybdenum compound of undivulged nature, introduced by Drs. E. Lampe and H. Klose as a medicinal and surgical antiseptic. It occurs as a fine white powder having an astringent taste and soluble in water to the extent of 10 per cent.—Mfrs.: Molyform Co., Frankfort-on-M., Germ.

MONOACETYL-PYROGALLOL is a snyonym of *eugallol*.

MONOBENZOYL-ARBUTIN.—See *cellotropin*.

MONOBROM-ETHANE is *ethyl bromide*.

MONOBROM-ISOVALERIANYL-UREA.—See *bromural*.

MONOIODOISOVALERYLGLYCOLUREA. — See *achiiobromin*.

MONOBROM-PHENOL, ORTHO-, also known as *bromphenol* and *monobromated phenol*, $C_6H_4Br.OH$, is a reddish-yellow, oily liquid of strong odor, soluble in 100 parts of water and in ether or chloroform, and used in 1 to 2 per cent. ointments in erysipelas, wounds, etc.—(Nonproprietary.)

MONOCHLORAL-ANTIPYRIN.—See *hypnal*.

MONOCHLOR-ETHANE is a chemical designation for the substance more commonly known as ethyl chloride.

MONOCITRYL-PARAPHENETIDIN.—See apolysin.

*MONOIODOISO*VALERYLGLYCOLUREA. — See achiiodin.

MONOL is a French trade name for *calcium permanganate.*

MONOPHENETIDIN CITRATE is a synonym of *apolysin.*

MONOSALICYLIC ACID GLYCERIN ESTER or ETHER is referred to under its trade name, *glycosal.*

MONOTAL is the methylglycolic acid ester of guaiacol, or *guaiacyl methylglycolate*, $C_{40}H_{12}O_4$. It occurs as a limpid, colorless oil, of faintly aromatic odor and specific gravity of 1.7 to 1.18. It is soluble in about 6 parts of olive oil, readily soluble in alcohol, ether or chloroform, and practically insoluble in water. It is used by inunction as an antipyretic and anodyne like guaiacol, 30 to 60 minims being rubbed in or painted on once or twice daily. —Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

MORPHACETIN is an English trade name for *diacetylmorphine (heroin.)*

MORPHINE-BISMUTH IODIDE is a soluble salt of bismuth iodide and morphine hydroiodate, recommended by A. Robin as an analgesic dusting-powder for wounds. As much of it is added to cinchonidine-bismuth iodide (erythrol) as will make about 0.025 gram of morphine per application.

MORPHINE BROM-ETHYLATE is described under its trade nome *morphosan.*

MORPHINE DIACETIC ESTER.—See diacetylmorphine.

MORPHINE METHYLBROMIDE.—See *morphosan.*

MORPHOSAN is the trade name for *morphine bromomethylate* or *morphine methylbromide*, of the formula $C_{18}H_{22}NO_3Br+H_2O$, and occurring as white, glistening needles containing 21 per cent. of bromine, and soluble in about 20 parts of water, slightly soluble in alcohol and nearly insoluble in chloroform or ether. The salt acts like morphine hydrochloride but is weaker. It easily crystallizes out from aqueous solutions. The solutions turn brown on sterilizing.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

MORRHUOL is a brand of the extractive of cod liver oil which is said to represent 25 of oil. It is marketed only in 3-grain capsules, 1 to 3 of which are given in place of cod liver oil thrice daily. *Morrhuol creosoté* capsules contain 3 minims of morrhuol and 1 minim of creosote, and are used in tuberculosis.—Mfr.: Vial, Paris, France; agts.: E. Fougera & Co., New York.

MUCIN is the mucous substance (glycoproteid) of bile, probably consisting, as marketed, of a mixture of serum globulin, true mucin, and bile salts. It occurs as a yellow to greenish-gray powder, soluble in water. It is used internally in gastric ulcer, and topically (in 1 per cent. solution in equal parts of lime water and sterilized water, with 1 per cent. of sodium bicarbonate and ½ per cent. of menthol) as a spray in rhinitis and pharyngitis, and as

an injection near the site of cancers. Dose, 10 grains with 10 grains of sodium bicarbonate at the beginning of meals. —Mfr.: E. Merck, Darmstadt, Germ.

MUCOL is described as a 1:30 solution of salicylic acid in alcohol and glycerin with a little menthol, and is used as a paint in infectious mouth and throat diseases.—Mfr.: Dr. A. Müller & Cie, Lebnitz, Germ.

MUCUSAN is described as "*diboron-zinc tetraorthooxybenzoate*" [ortho-oxybenzoic acid is salicylic acid.—Ed.] and as having the formula $(C_6H_4COO.O.C_6H_4COOH.O.BO-H)_2Zn$. It occurs as a light, white, odorless powder soluble in water and in alcohol. It is intended for use as an antiseptic and astringent in gonorrhea, leucorrhea, rhinitis, etc., applied in ¼ to 1 per cent. solutions. Marketed also as 15-grain tablets.—Mfrs.: Fabrik pharmaceutiscer Präparate, Frankfort-on-M., Germany.

MUIRACITHIN is a combination of inspissated fluidextract of muira puama and lecithin. It is used chiefly in sexual neurasthenia and nervous impotence. Marketed in silver-coated dragees.—Mfrs.: Kontor Chem. Präparate,, Berlin C, Germany; agts.: Cassett & Co., Inc., Philadelphia, Pa.

MULTITOXINE is described as a mixture of tubercle alexines (10), formaldehyde (1), and water (19), used in tuberculosis. Dose, 1.5 c.c. hypodermically.—Mfrs.: Aulde Chem. Co., Philadelphia, Pa.

MUSCULOSE is raw muscle juice recommended in tuberculosis.—Mfrs.: Chaise & Co., Paris, France.

MUSIN consists of 55 per cent. of castor oil and 45 per cent. of a mixture of levulose, albumin, egg yolk, and sugar. It is employed as a laxative.—Mfr.: J. E. Stroschein, Berlin, Germ; agts.: General Drug Co., New York.

MYDRINE is a combination of ephedrine and homatropine hydrochlorides (100:1), occurring as a white powder soluble in water, and employed in 10 per cent. solution as a mydriatic of transient effect.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

MYDROL *(iodo-methyl-phenyl-pyrazolon)* is a white powder readily soluble in water. It has been recommended as a mydratic, in 5 to 10 per cent. solution.

MYOCARDOL is a solution for hypodermic use and a tablet for internal use containing caffeine and extract of ergot in the proportion of 3 of the former to 17 of the latter. The products are used as heart stimulants.—Mfrs.: Drs. R. & O. Weill, Frankfort-on-M., Germ.

MYRTOL is the fraction of essential oil of myrtle which distills between 160 and 180° C.; a clear, colorless liquid, of pleasant odor, and soluble in alcohol. It is employed internally in chronic bronchitis, tonsillitis, cystitis, etc., and externally in parasitic skin diseases. Dose, 1 to 5 *minims several* times a day, in capsules or on sugar.—*(Nonproprietary.)*

N

NAFALAN is a recent analogue of naftalan (described below).—Mfrs.: Nafalan Co., Magdeburg, Germ.

NAFTALAN *(naphtalan)* is obtained from the distillation of naphta free from resin and asphalt, derived from Naftalan, in the Caucasus. It occurs as a blackish-green, ointment-like mass of empyreumatic odor, soluble in ether and chloroform, miscible with fats, and insoluble in water and alcohol. It is used in skin diseases—as 5 per cent. emulsion or ointment, 2 to 3 per cent. solution in olive oil, etc. Its stains on the linen may be removed with benzin. —Marketed by the Fort Wayne Drug Co., Fort Wayne, Ind.

NAPHOLIN is being advertised in medical journals as "a new remedy for eczema. Mixed with any base as a 10-per-cent. ointment it will stop the itching," etc.—Mfr.: Dr. A. P. MacDonald, Danbury, Conn.

NAPHTA SAPONATA is the name given by P. Hentschel, Zwönitz, Germ., to a naftalan substitute.

NAPHTASAPOL is another product claimed to be the same as *naftalan.*

NAPHTALOL and NAPHTOSALOL are synonyms of *betol.*

NAPHTHAMINE is an English trade name for *hexamethylenetetramine;* a formaldehyde compound official under the name *hexamethylenamine.*

NAPHTOFORMIN is a condensation product of hexamethylenetetramine *(formin,* etc.) and naphtol; a white, crystalline substance soluble in water or alcohol, insoluble in ether or oils. It is employed in dermatology. Its solutions should be prepared with *cold* solvents.—Mfr.: Dr. G. F. Henning, Berlin, Germ.

NAPHTOL, ALPHA, $C_{10}H_4.OH$, is an isomer of the official (beta-) naphtol, occurring as colorless or pinkish prisms or powder of pungent, irritating odor and taste, soluble in alcohol and ether, almost insoluble in water. It is used chiefly as an intestinal antiseptic and antifermentative, 5 to 15 grains, in wafers or castor oil; to a small extent also externally in erysipelas, etc., in 10 to 20 per cent. oily solutions.

NAPHTOL BENZOATE is described under *benzonaphtol.*

NAPHTOL BISMUTH is referred to under its trade name, *orphol.*

NAPHTOL, CAMPHORATED *(naphtol-camphor; naphtylated camphor),* is obtained by heating a mixture of 2 parts of camphor and 1 of beta-naphtol until its melts. It forms a thick liquid soluble in alcohol. It is used as an *antiseptic*—with cocaine as a paint on tuberculous processes, *diluted* with oil in coryza, scabies, etc. It should be *protected* against light.—(Nonproprietary.)

NAPHTOL SALICYLATE *(naphtol-salol).*—See *betol* and *alphol.*

NARCEINE-SODIUM SALICYLATE.—See *antispasmin.*

NARCOFORM is the same as *somnoform,* which see.

NARCOPHIN is the trade name adopted for double-salt *morphine and narcotine meconate,* $C_7H_4O_7.C_{17}H_{19}NO_3.C_{17}H_{19}NO_3.C_{22}H_{23}NO_7+4H_2O$. The article occurs as a white, bitter powder containing 31.2 per cent. of morphine and soluble in water and in alcohol. It is intended as a succedaneum for morphine and other opiates, and is used subcutaneously as well as internally. Dose, 15 to 30 drops of the 3-per-cent. solution.—Mfrs.: Boehringer & Soehn, Mannheim, Germ.; agts.: Merck & Co., New York.

NARCOTINE *(anarcotine; opium; narcosine)* is an alkaloid of opium formerly believed to be possessed of narcotic properties but more recently proved to be rather without such action and hence renamed *anarcotine.* It is prescribed in malaria and migraine, chiefly as its hydrochloride. Dose, 1½ to 4 grains.—(Nonproprietary.)

NARENTA WATER is described as an American spring water, "a medicinal water, a laxative water." The analysis shows it to contain the ingredients commonly found in natural laxative mineral waters, including sulphides. Dose, two tablespoonfuls with water, before breakfast.—Narenta Mineral Springs Co., East Aurora, N. Y.

NARGOL *(nuclein-silver; silver nucleinate* or *nucleide)* is a combination of silver with yeast nuclein, occurring as a brownish-white powder readily soluble in water and containing about 10 per cent. of silver. Its solutions are not precipitated by dilute organic acids, sodium chloride, alkalies or albumin, but by dilute inorganic acids. It is used in ½ to 20 per cent. solutions in eye diseases, gonorrhea, etc. Its solutions should be dispensed in dark amber bottle.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

NATRO-PHEN is a white, odorless, sweet powder moderately soluble in cold water and containing apparently sodium salicylate and acetanilid (phenylacetamide). It is prescribed as an antipyretic and anodyne. Dose, 3 to 10 grains, in capsules or powder.—Mfrs.: Natro-phen Chem. Co., New Albany, Ind.

NELLOSAN is a new nutritive of the following composition: Fat, 7.3 per cent.; albumen, 51.1 per cent.; carbohydrates and mineral matter, 8.15 per cent. The mineral matter contains 21.6 per cent. of iron oxide.

NEOARSOBENZOL and NEOVARSAN are two registered synonyms of *neosalvarsan.*

NEO-ARSYCODILE is one of the various trade names for *disodium methylarsenate,* which see.—Mfr.: Dr. M. Le Prince, Paris, France; agts.: E .Fougera & Co., New York.

NEOBORAT is a trade name for *sodium perborate.*

NEOCHININ is defined as a neutral hydrochloride of *cinnamyl-quinine,* occurring as tasteless, white crystals, and employed as an antiperiodic. Dose, 15 to 20 grains.

(Not to be confounded with another neoquinine, *quinine glycerophosphate.)*

NEODERMIN is an ointment containing 85 per cent. of lanolin, 10 per cent. of petrolatum, 4 per cent. of difluordiphenyl, and 1 per cent. of fluorpseudocumol, and having a decided aromatic odor. It is used in burns and various other skin lesions, pure.—Mfrs.: Valentiner & Schwarz, Leipsic-Plagwitz, Germ.; agts.: C. Bischoff & Co., Inc., New York.

NEO-PYRENOL is said to be prepared by the following process: Thymol is made water-soluble by p-dioxybenzene, and into this solution benzoic acid (Siam) is incorporated. Four parts of this product are added to equal parts of sodium benzoate and sodium oxybenzoate. It is said to act as a sedative, antirheumatic and antipyretic.—Mfrs.: Goedicke & Co., Leipsic, Germ.; agts.: Schering & Glatz, New York.

NEOPYRINE is *valerylamidoantipyrine*, and occurs as white, odorless, bitter crystals that are but slightly soluble in water, readily soluble in alcohol or chloroform. It is used as a nerve sedative and antispasmodic. Dose, 5 to 15 grains. A *bromneopyrine*, containing 21.85 per cent. of bromine and used especially as a nerve sedative, is also marketed.—Mfrs.: Knoll & Co., Ludwigshafen (Germ.) and New York.

NEO-SACCHARIN is a trade name for *saccharin*.

NEOSALVARSAN is a mixture of sodium-diamino-dihydroxy-arsenobenzene-methanal sulphoxylate with inert inorganic salts. It occurs os a yellow powder freely soluble in water, yieldingq neutral solutions. It is offered as a further improvement upon salvarsan, having the advantages of greater solubility, neutral reaction of its solutions (doing away with the necessity of neutralizing with sodium hydroxide), better borne, and better adapted for intramuscular injection. It is weaker than salvarsan, the ratio being 1:15; hence, the initial dose for men is 13½ grains, for women 9 grains, and for children 4½ grains. Its solutions do not keep, turning red; and the dry salt is also sensitive to atmospheric influences and spoils fast once the ampoule is opened.—Mfrs.: Meister, Lucius & Brüning, Hoechst-on-M., Germ.; agts.: Victor Koechl & Co., New York.

NEOTOPHAN and NOVATOPHAN are synonyms for an improved atophan not as yet on this market.

NEPENTHE is "a compound of blackberry root, nutgalls, cinnamon, ginger, prickly ash bark, and aromatic carminatives." It is used as an intestinal astringent and antizymotic. Dose, ½ teaspoonful.—Mfrs.: Tilden Co., New Lebanon, N. Y.

NEPHRITICA is "a combination of juniper, buchu, uva *ursi*, liverwort, lithia, bromide and acetate of potassium, *with* ½ grain of hyoscyamus to the dram." It is used in

kidney and bladder diseases. Dose, 1 to 2 teaspoonfuls.—Mfrs.: Tilden Co., New Lebanon, N. Y.

NEPHRITIN is described as "the primary substances of the cells of the cortex and convoluted tubules of the kidney." It is intended for employment in Bright's disease and other disturbances of the kidneys. It is marketed only as 5-grain tablets.—Mfrs.: Reed & Carnrick, Jersey City, N. J.

NEPHROSON is a diuretic elixir of sourwood, hydrangea, eupatorium, hair cap moss, water eryngo, corn silk, all green drugs, with tincture of apis, lithium benzoate, and juniper spirit. Dose, a teaspoonful every 1 to 3 hours.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, Ohio.

NESAIN is an arsenic-proteid compound, used subcutaneously as an alterative like *atoxyl*.—Mfr.: Dr. L. Oestreicher, Berlin, Germ.

NEUROCAINE is the name applied to billets of cocaine hydrochloride ½ grain without excipient.—Mfrs.: Schieffelin & Co., New York.

NEURODIN is the trade name for *acetyl-para-oxyphenylurethane*, $C_6H_4.(OCO.CH_3).NH.CO.OC_2H_5$, which chemical appears as colorless, odorless crystals slightly soluble in water. It is used as an antineuralgic and antipyretic. Dose, 5 to 25 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

NEURODINIA is an elixir of veronal (diethylmalonylurea) containing 2 grains of the drug in each fluid dram in a menstruum containing 35 per cent. of alcohol with aromatics. It is used as a hypnotic in all forms of insomnia save those caused by severe pains. Dose, 2 to 4 fluid drams. Sometimes administered per rectum, in double the dose by the mouth.—Mfrs.: Schieffelin & Co., New York.

NEURA-LECITHIN is described as an odorless and tasteless variety of egg lecithin.—Mfrs.: Lecithin-Werke, Neuss, Germ.

NEURO-LECITHIN is *lecithin* derived from fresh brain and spinal cord, marketed as tablets containing ⅓ grain of the drug with small amounts of fats and cholesterin. It is identical in action and uses with the regular lecithin obtained from yolk of egg.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

NEURONAL is the trade name applied to *bromdiethylacetamide*, $Br(C_2H_5)_2.C.CO.NH_2$, a white, crystalline powder of a camphoraceous odor and bitter, pungent, cooling taste; readily soluble in alcohol, ether or chloroform, and dissolving in about 120 parts of water at ordinary temperature. It is used as a hypnotic. Dose, 8 to 30 grains.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Lehn & Fink, New York.

NEUROSIN is the name applied by two manufacturers to *different products*. The one is a tablet containing *caffeine and nitroglycerin*, and used in cardiac neuroses,

hemicrania and the like; *neurosin Prunier* (Paris, France) is a syrup, granules, and cachets of calcium glycerinophosphate.

NEUROTINA Tablets are said to contain extract cannabis indica ⅛ grain, extract nux vomica 3/50 grain, extract saw palmetto 12/25 grain, iron phosphate 12/25 grain, extract damiana 1¼ grains, extract gentian) 21/25 grains, strychnine nitrate 1/80 grain, and hyos-sco-piper (a mixture of hyoscyamine 75 per cent., scopolamine 20 per cent., and piperidine 5 per cent.) 1/1200 grain. They are used in sexual neurasthenia.—Mfrs.: Combs Chem. Co., St. Louis, Mo.

NEUSPERIN is another German trade name for *acetylsalicylic acid* (aspirin).

NEUROTONE is an elixir of glycerinophosphates of calcium and sodium. Neurotone *capsules* contain 5 grains of the combitned salts, with 1/64 grain of strychnine nitrate. Marketed also in *ferro-arsenated* form, in capsules.—Mfrs.: Haas Pharmacy, New York.

NEUTRALON is a *purified alumnium silicate* brought carbonate, etc., in the treatment of gastric and intestinal diseases. It occurs as a white, odorless powder which neutralizes hydrochloric acid without the formation of carbonic acid gas. Dose, ½ to 1 teaspoonful stirred in a glass of warm water twice daily, before lunch and dinner.—Mfr.: Dr. C. A. F. Kahlbaum, Berlin, Germ.; agts.: Einer & Amend, New York.

NEW UROTROPIN is a brand name for *hexamethylenetetramine methylene citrate*, described under *helmitol*.

NICKEL BROMIDE, $NiBr_2$, was brought to the fore a few years ago as a nerve sedative, chiefly in epilepsy. It occurs as a greenish-yellow deliquescent powder soluble in water, alcohol or ether. Dose, 2 to 8 grains in solution. Maximum daily dose, 24 grains.—(Nonproprietary.)

NICKEL SULPHATE, green crystals of sweet, astringent taste and soluble in 3 parts of water, has also come somewhat into vogue latterly as a remedy in malarial migraine. Dose, ½ to 1 grain three times daily.—(Nonproprietary.)

NIERALINE is a French brand of the active constituent of the suprarenal capsule.—See *epinephrine*.

NIZIN is the trade name applied to *zinc sulphanilate*, $Zn(C_6H_6O_3NS)_2+4H_2O$. The product occurs as small white crystals soluble in water, and is recommended as an antiseptic astringent in inflammatory conditions of the mucous membranes, particularly gonorrhea. It is used in solutions containing 2 to 6 grains per fluid ounce. Marketed as 2-grain tablets.—Mfrs.: Burroughs, Wellcome & Co., London (Eng.) and New York.

NIZO-LYSOL is lysol with an improved odor (pleasant, aromatic), and hence specially adapted for disinfecting the *hands and* the sick-room. Its physical properties are *otherwise* the same as those of lysol, and it is prepared

according to the same process and contains the same proportions of cresols, but further purified.—Mfrs.: Schülke & Mayr, Hamburg, Germ.; agts.: Lehn & Fink, New York.

NORI is a nutrient prepared from sea algæ.

NORIDAL Suppositories for hemorrhoids consist of calcium chloride 0.05 gram, paranephrin (a brand of epinephrine) 0.0001 gram, calcium iodide 0.01 gram, and peru balsam 0.1 gram—Mfrs.: Kontor Chem. Präparate, Berlin C, Germ.; agts.: Cassett & Co., Inc., Philadelphia, Pa.

NOSOL (not nasol) is not a nose remedy but a dental antiseptic and anodyne consisting of eugenol (4), clove oil (4), eucalyptus oil (4), wintergreen oil (1), cinnamon oil (2), and thymol (2).

NOSOPHEN, formerly known as *iodophen*, is chemically *tetraiodo-phenolphthalein*, $C_{20}H_{10}O_4I_4$, resulting from the action of iodine upon phenolphthalein. It occurs as a brownish-yellow, nearly odorless, tasteless powder, containing 60 per cent. of iodine, soluble in ether or chloroform, insoluble in water, and sparingly soluble in alcohol. It is used chiefly as a surgical antiseptic in place of iodoform, but to some extent also as an intestinal antiseptic. Dose, 4 to 10 grains.—Mfrs.: Chem. Fabrik "Rhenania," Aix-la-Chapelle, Germ.; agts.: Stallman Co., New York.

NOSOPHEN-BISMUTH.—See *eudoxin*.

NOSOPHEN-MERCURY.—See *apallagin*.

NOSOPHEN-SODIUM.—See *antinosin*.

NOVARGAN is an organic silver-albumin compound *(silver proteinate)* containing 10 per cent. of silver. It occurs as a fine yellow powder readily soluble in water to form neutral solutions. Novargan is used as an astringent and bactericide, in 2 to 15 per cent. solutions.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

NOVASPIRIN is defined as *methylenecitrylsalicylic acid*, of the formula $C_{21}H_{16}O_{11}$. It occurs as a white, odorless powder, of acidulous taste, easily soluble in alcohol but almost insoluble in water. It contains 62 per cent. of salicylic acid. It is intended as a substitute for the salicylates in rheumatism, pleurisy, migraine, grippe, etc. Dose, 15 to 30 grains several times daily. Marketed also as 5-grain tablets.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

NOVIFORM is *bismuth tetrabrompyrocatechinate*, xeroform in which the phenol group is replaced by a pyrocatechin group. It is used mainly as an astringent dusting-powder, chiefly in eyelid diseases.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

NOVOCAIN is a local anesthetic discovered by Einhorn, *para-aminobenzoyldiethylaminoethanol hydrochloride*, and crystallizes in fine, colorless needles that melt at 156° C., and are soluble in 1 part of water and about 30 parts of alcohol. Its solutions may be boiled without undergoing decomposition. It is used as a local anesthetic, like cocaine. Internally it may be given in doses of 4 to 8

grains.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

NOVOCAIN NITRATE is *para-aminobenzoyldiethylaminoethanol nitrate*, occurring in small, colorless and odorless crystals that are soluble in water or alcohol. It is a local anesthetic that can be used with silver nitrate and other silver salts without fear of precipitation.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

NOVOCOL, *(sodium guaiacol-phosphate)* occurs as an almost tasteless powder readily soluble in water, and containing 50 per cent. of guaiacol. It is designed as a succedaneum for liquid guaiacol. Dose, 4 to 15 grains.—Mfr.: Gideon Richter, Budapest, Hung.; agts.: Lehn & Fink, New York.

NOVOIODIN is essentially a condensation product of iodine and formaldehyde, containing 32 per cent. of readily liberated iodine. It is used as a wound cicatrizant, an odorless substitute for iodoform.—Mfrs.: Scheuble & Hochstetter, Hamburg, Germ.

NOVOLAX is a chocolate-coated tablet said to contain 2 grains of phenolphthalein, with pulp of tamarind and sugar.—Mfrs.: "Sicco," Berlin, Germ.

NOVORENAL is the generic name adopted for solutions of various strengths of novocaine with epinephrine in physiological salt solution.—Mfrs.: C. Fr. Hausmann, St. Galen, Switzerland.

NOVOZONE is a trade name adopted for *magnesium peroxide*. See this title.

NUCLEIN as in vogue in this country is the sodium salt of nucleinic acid derived from yeast, generally contaminated with some albumin and carbohydrates of the yeast cells. It occurs as a grayish-white, amorphous powder, soluble in water, and insoluble in alcohol or ether. It is used in tuberculosis, chronic ulcers, puerperal fever, etc.—per os in capsules or solution (2 to 5 grains three times a day, between meals), or hypodermically in 5 per cent. solution in alkalinized water (10 to 60 minims diluted with the same quantity of physiological salt solution freshly boiled). Marketed also in 2-grain capsules, and in 5 per cent. solution for oral and for subcutaneous uses.—(Nonproprietary.)

NUCLEIN Horbaczewiski is prepared from spleen pulp, and forms a brownish-gray powder soluble in alkaline solutions, and used like nuclein from yeast.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

NUCLEOGEN is defined as an organic compound of phosphorus, arsenic and iron, the therapeutic uses of which are in chlorosis, neurasthenia, rachitis, anemia, and the like. It is marketed as tablets and as a sterilized solution intended for hypodermic use.—Mfr.: Dr. Hugo Rosenberg, Berlin, Germ.

NUCLEOL is a powdered nuclein as marketed by Parke, Davis & Co., Detroit, Mich.

NUTRIENT SUGAR (Prof. Soxhlet) is a mixture of approximately equal proportions of dextrin and maltose, slightly acidulated. It is used as addition to cow's milk in preparing modified milk for infant feeding.—Agts.: Arcady Farm, Lake Forrest, Ill.

NURITO is a proprietary preparation intended for use in rheumatism, neuritis, etc. Analyses made in the chemical laboratory of the American Medical Association showed the article to consist essentially of pyramidon 60 per cent., phenolphthalein 6 per cent., and milk sugar 34 per cent. Accordingly, each 10-grain powder (so marketed) contains approximately 6⅔ grains of pyramidon, ⅔ grain of phenolphthalein, and 2⅔ grains of milk sugar. —Mfrs.: Magistral Chem. Co., New York.

NUTROSE *(casein-sodium; sodium caseinate)* is an invalid food prepared from casein of milk with the aid of alkali; a white, coarse, odorless, nearly tasteless powder, soluble in water. Dose, ⅛ to ½ ounce, in soup, milk, oatmeal, etc.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

NYMPHAGESTIN is a bath salt with the aid of which an artificial Gastein thermal bath may be prepared, it is claimed.—Mfrs.: Nymphagestin Co., Berlin, Germ.

NYRDAL.—See *algarine.*

O

OBTUNDO is a dental local anesthetic containing chloretone, cocaine, nitroglycerin, thymol, menthol, and oils of eucalyptus, wintergreen and cloves.

OCULIN is a sterilized glycerin extract of the ciliary body and vitreous humor of bull's eyes, admixed with 0.6 per cent. of sodium chloride. It is used internally and subcutaneously in detachment of the retina.

ODDA is an infant food introduced by Prof. von Mehring, and prepared from whey, flour, sugar, cacao butter, and yolk of eggs, the two latter in place of butter, which often gives rise to abnormal butyric fermentation in the system. The dose is 20 grams per day for each kilo of the child's weight.—Mfrs.: Deutsche Mährmittelwerke, Berlin, Germ.

ODOL is a mouth-wash extensively advertised abroad, consisting of an alcoholic solution of salol, saccharin, oil of peppermint, and traces of oils of cloves and caraway.

ODOS is a substitute for meat extract, prepared from oats.

ODYLIS is obtained by heating a mixture of terpin and resorcin. It is a yellowish thin oil of an agreeable odor, and said to have antiseptic properties.

OENASE is the ferment of raisins, and is used in dyspepsia, anorexia, etc. Marketed only as 0.5-gram tablets, 2 to 6 *of which* are given daily.—Mfr.: Goutrurieux, Paris, *France.*

OIL, ARBOR, is apparently analogous to naftalan.—Mfrs.: Arbor Oil Continental Co., Mülhausen, Germ.

OIL, ARISTOL, is a 10-per-cent. sterilized solution of aristol (thymol iodide) in sesame oil, and occurs as a clear, reddish-brown, permanent liquid that has been recommended for use in various eye diseases.

OIL, CYPRES *(oleum cupressi)*, is a colorless, volatile oil obtained from the fresh leaves and tender shoots of *cupressus sempervirens*. It is employed as an antiseptic and antispasmodic, chiefly in whooping-cough — a little sprinkled upon the child's pillow and about the patient's room.—Mfrs.: essential oil makers in general.

OIL, DIGITALIN, or *huile digitalique Nativelle*, is an oily solution of Nativelle's digitalin (practically identical with digitoxin), containing ⅛ milligram in each c.c., and used slightly warmed by subcutaneous injection as a heart stimulant. Dose, 1 c.c. once or twice daily.

OIL, MELALEUCA VIRIDIFLORA, is referred to under its trade name, *gomenol*.

OILS OF ATROPINE, ESERINE, COCAINE and PILOCARPINE, for ophthalmic use, according to Dr. von Pflugk, consist of solutions of the respective alkaloids (the uncombined bases) in purified peanut oil.

OKERTIN is a water containing sulphates, free sulphuric acid, manganese and magnesia compounds, and traces of copper. It has an acidulous, astringent taste, and is used in eye diseases, gynecological affections, etc.

OKISTYPIN is a brand name recently applied to *cotarnine hydrochloride*, a product hitherto marketed only under the trade name of *stypticin*.. The preparation is employed as a uterine hemostatic as well as a dental styptic.—Mfr.: Phil. Röder, Vienna, Austria.

OLAN is a generic name given to vasoliniments, a class of substances that are intended to be used like the *vasogens*.—Mfr.: Dr. W. Sternberg, Wutha-Eisenach, Germ.

OLEOMANGAN is described as an emulsion of olive and petroleum oils, with peptonates of iron and manganese. It is used as a hematinic and general tonic. Dose, a tablespoonful after meals, in hot water.—Mfrs.: Weightman Pharmacal Co., New York.

OLEORESIN PARSLEY SEED.—See *apiol green*.

OMAL is the terse name applied to *trichlorphenol* or *phenol trichloride*, $C_6H_2OHCl_3$; white crystals soluble in alcohol and ether, slightly soluble in water. It is used in 5 to 10 per cent. ointments or solutions in erysipelas, diphtheritic ulcers, etc., and by inhalation in tuberculosis.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

OMNOPON is the name under which *pantopon* is marketed in Great Britain.

OMOFORM is a fine, brownish-yellow, odorless powder insoluble in the ordinary solvents, and used as a substitute for iodoform.—Mfrs.: Penn Pharm. Co., Philadelphia, Pa.

OMOROL is an insoluble silver-albumin compound advertised chiefly for local use in diphtheria. Antitoxin is, of course, intended to be used in conjunction.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

OOPHORIN is a dry preparation of the ovaries of pigs and cows, marketed in 0.3-gram and 0.5-gram tablets, and used in climacteric disorders of women, chlorosis, and the like. Dose, 1 to 3 tablets three times daily.—Mfrs.: Drs. Freund & Redlich, Berlin, Germ.

OPHTHALMOL, heralded as a remedy for granular eyelids, is, according to F. Frank, simply sterilized peanut oil. —Marketed by Dr. Schaffner, Basle, Switzerland.

OPIAN is a synonym of *narcotine*.

"OPO" is a prefix used in connection with a line of dry organo-therapeutic preparations introduced by Prof. A. von Poehl, of St. Petersburg. These products are said to contain the active constituents of the respective organs in the most concentrated form possible, the tissue structure and precipitable albuminoids, that are without therapeutic action, having been removed. One part represents 10 to 20 parts of the fresh organ. *Opo-cerebrin* is made from the gray matter of the brain, and is prescribed in nervous affections, slow heart, etc., in doses of 3 to 5 grains thrice daily, as tablets (so marketed). It comes also in liquid form for injection. *Opo-hepatoidin* is made from livers, and is used in jaundice, cirrhosis, etc.; 8 to 20 grains three times a day. *Opo-hypophysin*, from the pituitary body (hypophysis cerebri), is prescribed in acromegalia; dose, ¾ grain. *Opo-lienin* is made from the spleen, and employed in enlarged spleen, leucemia, etc.: dose, 30 to 90 grains twice a day. *Opo-medullin*, from red bone-marrow, is used in pernicious anemia, neurasthenia, chlorosis, etc.; dose, 3 to 15 grains three times a day. *Opo-orchidin* is prepared from bulls' testicles, and used in spinal diseases and other nervous disorders; dose, 8 to 15 grains three times daily. *Opoossiin*, from yellow bone-marrow, is prescribed in rickets and osteomalacia; dose, 3 to 15 grains thrice daily. *Opo-suprarenalin* is derived from the suprarenal capsule, and employed in diabetes insipidus, Addison's disease, change of life, etc.; dose, 3 to 6 grains twice daily. *Opo-thyroidin*, from thyroid gland, is prescribed in myxedema, cretinism, obesity, etc., in doses of ¾ to 1½ grains three times a day. *Opo-ovulin*, from ovary substance, is employed in climacteric disturbances of women, hysteria, etc.; dose, 3 to 12 grains three times a day. *Opo-prostatin* is employed in hypertrophy of the prostate gland; dose, 3 grains three times a day.—Marketed by Lehn & Fink, New York.

OPSONOGEN is "a staphylococcus vaccine prepared according to the method of Wright and Strubell; 1 c.c. represents *100,000,000* killed staphylococci." Its indications are *local staphylococcus* infections, particularly furunculosis, *acne and weeping* eczema. Dose, at first 0.5 to 0.75 c.c.,

gradually increasing to 5 c.c.—Mfrs.: Chem. Fabrik Güstrow, Güstrow, Germ.; agts.: Lehn & Fink, New York.

ORANGEINE, according to reports from the chemical laboratory of the American Medical Association, is a mixture of acetanilid 43 parts, caffeine 10 parts, and sodium bicarbonate 18 parts; with (according to the makers) small proportions of podophyllin, nux vomica and blue flag.—Mfrs.: Orangeine Chem. Co., Chicago, Ill.

ORCHIC SUBSTANCE consists of the pulp from fresh ram testicles, removed, dried and powdered, without the addition of preservative or diluent. It is a light-yellow powder of peculiar odor and only partly soluble in water. One part represents seven parts of the fresh pulp. It is used as a tonic, alterative and roborant, in neurasthenia, obesity, prostatic hypertrophy, etc. Dose, 2 to 5 grains three times daily. Marketed also as 2-grain *tablets*.—Mfrs.: Armour & Co., Chicago, Ill.

ORESOL *(orcson)* is defined as *guaiacol glycerin* (or *glyceryl) ether*, and thus appears to be identical with *guaiamar*, which see.

OREXINE was the name originally applied to *phenyl-dihydro-quinazoline hydrochloride*, introduced by Prof. Penzoldt in 1890. Three years later it was applied to the pure base *phenyl-dihydro-quinazoline*, which product, because possessing less of the pungent taste and irritating properties of the hydrochloride, superseded the latter. Now the name applies to the *tannate* of the same base, introduced by Dr. Steiner in 1897. This preparation occurs as a yellowish, odorless and practically tasteless powder, insoluble in water and only slightly soluble in alcohol. It is prescribed as an appetizer and stomachic, as well as for sea-sickness and vomiting of pregnancy and that following narcosis. Dose, 8 to 12 grains twice daily, 1 hour before meals, with water. Marketed also as 4-grain tablets. Incompatible with iron compounds.—Mfrs.: Kalle & Co., Biebrich, Germ.; agts.: Merck & Co., New York.

ORGANOSOL is an alcoholic solution of colloidal silver (collargol).

ORGULATUM is an external application for inflammation and congestion, stated to contain in each pound 1 ounce of olive oil, 1 ounce of eucalyptus oil, 1 ounce of thyme oil, ¼ ounce of glycerin, ½ ounce of camphor, 2 drams of compound tincture of benzoin, and 1 dram each of chloretone and menthol, with petrolatum and beeswax.

ORPHOL *(naphtol-bismuth; bismuth beta-naphtolate)* is said to contain about 20 per cent. of combined beta-naphtol, with about 64 per cent. of combined bismuth oxide, as well as about 16 per cent. of free bismuth oxide. It occurs as a grayish-brown, almost odorless powder, of nonpronounced taste, and becoming darker and more odorous with age; insoluble in water, slightly soluble in alcohol. Incompatible with acacia mucilage. It is prescribed as a gastro-intestinal disinfectant and astringent. Dose, 8 to

20 grains several times daily; children, 2 to 5 grains. Marketed also as 5-grain tablets.—Mfrs.: Von Heyden, Radebeul, Germ.; agts.: Schering & Glatz, New York.

ORSUDAN is the trade name adopted for *sodium methylacetylaminophenylarsonate*, $..(C_6H_3NH.CH_3CH_3CO)$-As.OH.ONa. It contains 25.4 per cent. of arsenic, and is soluble in 4 parts of water, yielding solutions that can be sterilized by boiling for five minutes. It is used as an antiluetic and alterative (like soamin, to which it is chemically related), but claimed to be less toxic even than soamin. Dose, per os (skin diseases), ¼ to 1 grain, after meals; by intramuscular injection (syphilis), 5 to 10 grains every other day.—Mfrs.: Burroughs Wellcome & Co., London (Eng.) and New York. [Caution should be observed in the administration of the arylarsonates such as orsudan, soamin, atoxyl, etc., as in certain cases toxic symptoms have arisen despite the diminished toxicity of this class of organic arsenic compounds.—Ed.

ORTHO-BROMPHENOL.—See *monobrom-phenol*.

ORTHOCOL is defined by the manufacturer as "an alkaline salt of guaiacol," soluble in water, lacking odor and distinctive taste—probably *potassium guaiacol-sulphonate* (better known as thiocol). It is the main ingredient of "elixir of orthocol comp." ("benzo-guaiacol"), which contains in each 2-teaspoonful dose 4 grains of the drug with 2 grains of terpin hydrate and 1/12 grain of codeine phosphate. It is used in phthisis and chronic bronchitis. Dose, 5 to 10 grains three times daily.—Mfrs.: Larimore & Co., New York.

ORTHO-CRESOL IODIDE is better known as *traumatol*.

ORTHOFORM as now marketed is the *methyl ester of meta-amido-para-oxybenzoic acid*, $C_6H_3.NH_2.OH.COOCH_3$. It occurs as a white, bulky, odorless, tasteless powder, slightly soluble in water, soluble in 6 parts of alcohol and 50 parts of ether; it dissolves readily also in collodion. It is prescribed as a local anesthetic and antiseptic in painful wounds, ulcerated larynx, etc., in 5 to 20 per cent. ointments, paints or dusting-powders, or pure; internally in ulcer and neuralgia of the stomach. Dose, 5 to 15 grains; locally in substance as a dusting-powder or mixed with milk sugar for insufflation, in collodion, salve, etc. *Orthoform hydrochloride* is identical in action with the base, but freely soluble in water. It has been used hypodermically, but found rather irritating, and hence has been practically abandoned. Orthoform must not be exposed to light. It is incompatible with antipyrin, bismuth subnitrate, mercuric chloride, silver nitrate, zinc chloride, and potassium permanganate.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

ORTHONAL is a local anesthetic representing a combination of a 0.5-per-cent. solution of cocaine hydrochloride *and a 0.75-per-cent.* solution of alypin, to which is added *6 per cent. of* a 1:10,000 solution of epinephrine. It is mar-

keted in sterilized ampoules holding 1 c.c. and 2 c.c. of the solution, respectively.

ORTHO-OXYBENZYLIDEN-PARA-PHENETIDIN is a synonym of *malakin*.

ORUDON. Two preparations, a liquid ("essence") and a solid ("salt") are marketed under this name and recommended as antirheumatics and antineuralgics. According to Aufrecht, the liquid contains as its chief constituents iodine, salicylic acid and piperazin, while the solid, which is also recommended for gout, contains urea, diuretin and the sulphates and carbonates of magnesium, lithium and sodium.—Mfrs.: Hof-Apotheke, Elbing, Germ.

OSMIUM TETRAOXIDE.—See *acid osmic*.

OSMOSINE is collyrium containing cadmium sulphate, hydrastine alkaloid, glycerin, and distilled water.—Mfrs.: G. W. Carnrick Co., New York.

OSMOSUM is described as consisting of aluminum silicate, glycerin, ¼ per cent. of phenol, and aromatics. It is intended as a succedaneum for flaxseed poultices.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

OTALGAN is a solution of extract of opium and antipyrine in practically anhydrous glycerin. It is used locally in acute inflammation of the middle ear.—Mfrs.: Schwanen-Apotheke, Mayence, Germ.

OVADIN is a pulverulent preparation of ovary substance, analogous to ovariin.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

OVARADEN is a standardized dried extract of ovary, 1 part representing 2 parts of the fresh gland; a grayish, nearly odorless, sweetish powder, administered in disorders accompanying the menopause or following ovariotomy, chlorosis, etc. Dose, 15 to 30 grains three times daily, usually as tablets.—Mfrs.: Knoll & Co., Ludwigshafen (Germ.) and New York.

OVARADEN-TRIFERRIN Tablets contain 5 grains of ovaraden, 1½ grains of triferrin, and some chocolate. They are used in exhausting diseases of women and mal-development of the genital organs associated with painful or deficient menstruation, etc. Dose, 2 tablets daily, the tablets to be masticated.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rhine and New York.

OVARIAL is a synonym of *ovariin*.

OVARIN *(ovarial)* represents the dried ovaries of the cow, 1 part equaling 8 parts of the fresh organ. Its uses are the same as those of ovaraden. Dose, 3 to 6 grains three times a day, in pills or tablets. Marketed also as 3-grain tablets.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

OVOFERRIN is a reddish-brown, nearly odorless, slightly aromatic 5-per-cent. solution of an organic iron compound, "synthetic iron vitellinate," to which the formula $C_{72}N_{12}SH_{96}Fe_2O_{22}$ has been assigned; each tablespoonful is equivalent to 1 grain of elementary iron. It contains

about 9 per cent. of alcohol. It is used as a "blood builder." Dose, ½ to 1 tablespoonful in water or milk before meals and at bedtime; children, 1 to 2 teaspoonfuls.—Mfrs.: A. C. Barnes Co., Philadelphia, Pa.

OVOGAL is described as a compound of the biliary acids with albumin, prepared according to a patented process. It is a greenish-yellow powder insoluble in water and the rest of the ordinary solvents as well as in diluted acids, but soluble in alkali solutions with decomposition. It should not therefore be dispensed with alkalies in liquid or pill form. It is intended for use in intestinal catarrh, chronic constipation, and especially in diseases of the liver and the bile ducts. Dose, 15 to 60 grains.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

OVO-LECITHIN.—See *lecithin*.

OXAPHOR is a 50-per-cent. alcoholic solution of oxycamphor, $C_{10}H_{16}O_2$, a white, crystalline powder of peppery, bitter taste and peppery odor, and easily decomposing when exposed to light or water. It is soluble in about 50 parts of water, readily in alcohol, ether or chloroform. It is used chiefly in dyspnea, emphysema and asthma. Dose, 15 to 45 minims two or three times a day, well diluted.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

OXIDOL is described as "a combination of pinus sylvestris, boric acid, celendula, acetanilide (20 per cent.), and eucalyptus (antiseptically aromatized)"; a grayish-yellow powder of pleasant odor. It is used as a vulnerary. Marketed as *powder* and as *ointment* (10 per cent.).—Mfrs.: Oxidol Chem. Co., Boston, Mass.

OXYNTIN is described as a compound of albumin with hydrochloric acid containing 5 per cent. of absolute acid loosely combined to the protein. Ten grains represent 5 minims of official diluted hydrochloric acid. It occurs as a dry, granular powder readily miscible with water. It is designed as a substitute for hydrochloric acid in digestive disorders. Dose, 5 to 15 grains, during gastric digestion. *Oxyntin with pepsin* is a 5-grain tablet containing 1 grain of pepsin.—Mfrs.: Fairchild Bros. & Foster, New York.

OXONE is the trade name applied to *fused sodium peroxide* containing a fractional percentage of a catalytic agent. It is said to yield the entire content of available oxygen upon contact with water.—Mfrs.: Roessler & Hasslacher Chem. Co., New York.

OXYCAMPHOR.—See under *oxaphor*.

OXYCHLORINE is represented to be a "double salt of sodium and potassium tetraborate combined with boron oxychloride, thus $(6NaKB_4O_7)BOCl_3$." It is employed as an antizymotic and as a wound antiseptic. According to analyses made at the chemical laboratory of the American Medical Association, it is "essentially a mixture of potassium chlorate, sodium nitrate, potassium tetraborate, so-

dium tetraborate and boric acid."—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

OXY-DIMETHYL-QUINAZINE is *antipyrin.*

OXYDOL is a brand of *hydrogen peroxide solution.*

OXYMENTHOL is an analogue of the article known in this market as *menthoxol* and employed mainly as an antiseptic and anodyne gargle in inflammatory throat ailments.—Mfrs.: Hoeckert & Michalowsky, Berlin, Germ.

OXYMETHYLENE.—See *formaldehyde.*

OXYNAPHTYL-ORTHO-OXY-TOLUYLIC ACID is *epicarin.*

OXYQUINOLINE-ALUM.—See *chinosol.*

OXYSPARTEINE, $C_{15}H_{24}N_2O$, is an oxidation product of sparteine, occurring as white or faintly yellowish crystals soluble in most of the usual solvents. It is used in heart failure, generally as its hydrochloride, subcutaneously. Dose, ½ to 1½ grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

OXY-TOLUOL-TROPINE or OXY-TOLUYL-ATROPEINE is *homatropine.*

OZOFLUIN is a new pine-needle bath prepared according to a patented process, marketed in 10 Cc. cans, which quantity is used for one bath.—Mfr.: Ozofluinzentrale, Basle (Switzerland).

P

PACOCREOLIN is a preparation put out by the manufacturer of creolin, and intended for disinfection of "cruder sorts." For uses, etc., see creolin.

PALATOL is a tonic syrup each fluid ounce of which is said to represent gaduol derived from 250 minims of cod-liver oil, hematic hypophosphites (syrup hypophosphites compound) 90 minims, malt extract 60 minims, and syrup of wild cherry 120 minims. Dose, 2 to 4 fluid drams.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

PALMIACOL or *cetiacol* is a derivative of guaiacol, for which the formula $C_{23}H_{40}O_2$ is given, and which has been defined chemically as *cetyl-guaiacyl* or *pyrocatechin-methyl-acetyl ether.* It is marketed as a liquid of non-pronounced taste, insoluble in water but soluble in the remainder of the ordinary organic solvents, and put up in pearls containing 3 minims each. It is intended as a substitute for guaiacol and creosote internally. Dose, 1 to 3 or more pearls.—Mrs.: The Trommer Co., Fremont, O.

PANASE is described as a combination of the digestive enzymes of the pancreas derived from the pancreas of the pig. It is a yellowish-white powder having a faint odor and a slight mucilaginous taste. It is not entirely soluble in water or glycerin, owing to the small amount of protein present. It is incompatible physiologically with strong alcohol, acids, alkalies and other substances which destroy the activity of enzymes. Panase is used as an amylolytic

and wherever the enzymes of the pancreas are deficient. Dose, 2 to 5 grains.—Mfrs.: F. Stearns & Co., Detroit, Mich.

PANKREON is a compound of pancreatin with 10 per cent. of tannin, that is said to resist the action of the gastric juice; a fine, grayish-red powder, of a peculiar nut-like odor and not unpleasant taste, and insoluble in water and dilute acids. It is prescribed in pancreatic diabetes, intestinal indigestion, etc. Dose, 4 to 8 grains thrice daily. Marketed also as 4-grain tablets.—Mfrs.: Chem. Fabrik "Rhenania," Aix-la-Chapelle, Germ.; agts.: Merck & Co., New York.

PANKREON B is a variety of pankreon intended for veterinary use, particularly as a prophylactic and curative in the diarrhea of calves.

PANOPEPTON is a liquid food said to be prepared from beef and wheat by actual digestion with gastric and pancreatic juices, and to have a standardized content of 22 per cent. total dry solids, proteids 6.3 per cent., carbohydrates 13 per cent., inorganic salts 1 per cent., and alcohol 19.7 per cent. (by volume). It is used mainly during acute diseases and convalescence. Dose, 2 to 4 teaspoonfuls.—Mfrs.: Fairchild Bros. & Foster, New York.

PANTOPON is an opium preparation introduced at the instigation of Prof. Sahli, of Berne, Switzerland. It is said to represent the total alkaloids of opium as hydrochloride and in soluble form eligible also for hypodermic use. Dose, 1/6 to 2/3 grain, orally or subcutaneously. Marketed as powder, tablets, hypodermic tablets and sterilized solution for injections. Mfrs.: Hoffmann-LaRoche Chem. Works, Basle (Switzerland) and New York.

PANZYME is a combination of diastase, pancreatin, pepsin and rennin, together with carminatives and aromatics. It is employed as a digestive.—Mfrs.: F. Stearns & Co., Detroit, Mich.

PAPAIN, PAPAYOTIN, PAPOID, CAROID and VEGETABLE PEPSIN are various names applied to the digestive ferment contained in the juice of the fruit and leaves of carica papaya (papaw). The drug occurs as a whitish-yellow, slightly hygroscopic, odorless powder, soluble in water and glycerin, but insoluble in alcohol. It is active in alkaline, neutral or acid solution, especially in the first-named. It is used externally as a solvent of false membranes, and in fissured tongue, etc.—5 per cent. solution in equal parts of glycerin and water; internally as a digestive. Dose, 2 to 5 grains.—(Nonproprietary.)

PAPAYANS is the name applied to absorbent digestive tablets said to contain papain, willow charcoal, sodium bicarbonate, and aromatics (ginger and wintergreen oil). Dose, 2 to 5.—Mfrs.: Bell & Co., Orangeburg, N. Y.

PARA-ACETAMIDO-PHENETOL is another synonym of *acetphenetidin* (official).

PARA-ACETPHENETIDIN is a synonym of *acetphenetidin (official)*.

PARA-AMIDOBENZOIC ACID ETHYL ESTER is the chemical designation for *anesthesin*, which see.

PARABISMUTH is a *bismuth paranucleinate* containing 50 per cent. of metallic bismuth. It occurs as a pale-yellow, odorless powder having a slight astringent taste, insoluble in water and acid liquids, and decomposed slowly by alkaline solutions. It is used as a gastrointestinal sedative and astringent. Dose, 5 to 10 grains several times daily.—Mfr.: Gideon Richter, Budapest, Hungary; agts.: Lehn & Fink, New York.

PARA-CHLORPHENOL *(para-monochlorphenol)*, C_6H_4ClOH, occurs as colorless crystals that are readily soluble in alcohol, ether or alkalies, but sparingly soluble in water. It is used as an antiseptic; in 2 per cent. ointments in erysipelas and syphilitic opthalmia, in 5 to 20 per cent. glycerin solution in laryngeal tuberculosis, in substance in dental caries, etc.—(Nonproprietary.)

PARACOTOIN, $C_{11}H_8O_4$, is a neutral indifferent bitter principle derived from paracoto, the bark of an undetermined South American tree, probably a species of cryptocarya. It occurs as a pale-yellow, odorless and tasteless crystalline body, sparingly soluble in water but easily soluble in ether or chloroform. In small doses (1/20 to ⅛ grain) it is used as an appetizer, and in larger doses (1 to 3 grains) as an intestinal astringent.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

PARA-DIETHOXY-ETHENYL - DIPHENYL-AMIDINE HYDROCHLORIDE.—See *holocaine*.

PARAFORM or PARA-FORMALDEHYDE, more correctly *trioxymethylene*, and also known as *triformol*, is polymerized formaldehyde, $(CH_2O)_3$; a white powder, insoluble in alcohol or ether, and giving off formaldehyde at ordinary temperature and more rapidly when heated. It is used chiefly for the generation of formaldehyde gas for disinfectant purposes, also on warts (10 per cent. suspension in collodion); it is occasionally prescribed as an intestinal disinfectant in diarrhea, and it is employed in dentistry for disinfecting root canals. Dose, 3 to 10 grains. See caution under *formaldehyde*.—(Nonproprietary.)

PARA-LYSOL is a compound of cresol with an alkali, which, according to A. Nieter, forms white crystals melting at 146° C. and containing 8.3 per cent. of potassa and 91.7 per cent. of cresol. It is considered as a solid cresol soap, and thus appears to be very similar to *metakolin*. Like the latter, it is marketed in the form of 1-gram tablets, and is intended for disinfecting purposes in 1 to 3 per cent. solution.—Mfrs.: Schülke & Mayr, Hamburg, Germ.; agts.: Lehn & Fink, New York.

PARAMIDOBENZOIC ACID ETHYL ESTER.—See *anesthesin*.

PARAOXYETHYLACETANILID is *acetphenetidin*.

PARAPHENETIDIN CITRATE is a synonym of *citrophen*.

PARAREGULIN is a modification of regulin. It consists of an emulsion of liquid paraffin, containing 10 per cent. of extract of cascara sagrada. The paraffin oil is said to soften and loosen the feces, without chemically irritating the intestinal walls. The article is marketed in gelatin capsules containing 3 grams, and issued specifically to regulate and facilitate the movements of the bowels. Mfrs.: Chem. Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

PARARENOL is the trade name for a solution of the active principle of the suprarenal capsule, ar marketed by Rich. Fürst, Berlin, Germ. See *epinephrine.*

PARATHYREODIN is a preparation of the parathyroid gland marketed as tablets each containing 0.1 gram of epithelial substance. The product is intended for use chiefly in tetanus.—Mfrs.; Drs. Freund & Redlich, Berlin, Germ.

PARATHYROID GLAND DESICCATED is a light-yellow powder having a peculiar odor and only partly soluble in water. One part represents about six parts of the fresh gland. It is used especially in tetany, following removal of the parathyroids. Dose, 1/20 grain, four times a day.—Mfrs.: Armour & Co., Chicago, Ill.

PARENOL *(solid parenol)* is an ointment base recognized in the British Pharmaceutical Codex, and having the following formula:

Soft paraffin (petrolatum)	65 parts.
Wool fat	15 parts.
Distilled water (warm) q.s. ad	100 parts.

Melt the petrolatum and wool fat, pour the mixture into a warm mortar and gradually add the distilled water. The product will take up more than its own weight of water, and mixes readily with all fats.—(Nonproprietary.)

PARENOL LIQUID is another B. P. C. preparation, made as follows:

Liquid paraffin (liquid petrolatum)	70 parts.
White beeswax	5 parts.
Distilled water (warm), q.s. ad	100 parts.

Melt the wax in the liquid petrolatum, pour the mixture into a warm mortar, and gradually add the distilled water. The product is a neutral liquid suitable for lubricating catheters, as a vehicle for injections, etc.—(Nonproprietary.)

PARIETIN is identical with the well-known *chrysophanic acid.*

PAROGEN *(liquid parogen; vasoliniment)* is directed by the British Pharmaceutical Codex to be made as follows:

Liquid paraffin (liquid petrolatum)	40 parts.
Oleic acid	40 parts.
Ammoniated alcohol (5%)	20 parts.

Mix, and agitate until a clear solution results. The product is readily absorbed by the skin, and forms a useful

vehicle for medicaments when it is desired that their action shall not be merely superficial.—(Nonproprietary.)

PAROGEN THICK (*parogen spissum*, B. P. C.) consists of hard paraffin 12 parts, liquid paraffin 48 parts, oleic acid 30 parts, ammoniated alcohol (10%) 10 parts. It is used as a very penetrable ointment base for endermic medication.

PAROTID GLAND has uses similar to those of the mammary and ovary; it has been employed in artificial menopause, intermenstrual pain and other conditions in which the ovary or corpus luteum is used. Dose, 2 to 5 grains.—(Nonproprietary.)

PAS-AVENA is a liquid nerve sedative each fluidounce of which is said to represent 20 grains of passiflora, 10 grains of avena sativa, and 2 grains of anilipyrin (a substance "formed by the fusion of two molecules of antipyrin and one molecule of acetanilid"). Dose, a tablespoonful.—Mfrs.: Pas-Avena Chem. Co., New York.

PASSOLARIA is a vegetable nervine each fluidounce of which represents scutellaria 96 grains, passiflora 96 grains, and horsenettle 40 grains, with aromatics.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

PASTA LIEBERMANN is an aseptic wound application consisting of 50 per cent. sterilized bole (probably kaolin), glycerin, alcohol and 1 per cent. of azodermin. It is marketed in collapsible tubes of 50 and 100 Gms. each.—Mfrs.: Aktiengesell für Anilinfabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

PEGNIN is the rennin of calf's rennet, diluted with milk sugar and sodium chloride. It occurs as a fine, white powder, having a sweet, saline taste, and readily soluble in water. It is intended as an addition to milk, to render it more easily digestible, analogously to rennin.—Mfrs.: Farwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

PELLETIERINE TANNATE (official) is referred to here merely on account of the disparity in the dose-statements found in various works of reference. While some authors give the dose as from one to a few grains, and the maximum dose as 8 grains, others more recently advise giving from 8 up to 24 grains at a dose. The tannate of pelletierine being almost insoluble in water, is probably not absorbed to any extent, and hence relatively non-toxic.

PELLIDOL is the dioctyl derivative of amidoacetolsol, occurring as a pale reddish-yellow, non-staining powder, readily soluble in the ordinary organic solvents and in oils and fats, and used as a wound-granulator.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

PELLOTINE is the alkaloid of the Mexican cactus anhalonium Williamsii, "peliote." It is marketed only as its hydrochloride, colorless crystals soluble in water. It is used as a hypnotic and narcotic. Dose, ½ to 1½ grains.—

Mfrs.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

PENETROLES are a class of preparations like the vasogens or petrogens. The line includes *analgesic*, *camphor*, *guaiacol*, *ichthyol* and *iodine* penetroles.—Mfrs.: Eli Lilly & Co.,In dianapolis, Ind.

PEPETAL is an elixir of the proteolytic and milk-curdling enzymes, each fluid dram of which is sufficient to digest 3000 grains of freshly coagulated egg-albumin under the conditions prescribed in the U. S. P. for pepsin testing, and will curdle 1 quart of milk (length of time not stated. —Ed.) Ordinary dose, 1 fluid dram.—Mfrs.: Sharp & Dohme, Baltimore, Md.

PELOSINE is a synonym of *bebeerine*.

PEPSIN, VEGETABLE.—See *papain*.

PEPTENZYME is stated to combine the nucleo-enzymes (ferments) of seven glands concerned in the digestive functions, and is hence prescribed as an all-round digestive. Dose, 3 to 10 grains.—Mfrs.: Reed & Carnrick, Jersey City, N. J.

PEPTO-BROM-EIGON and PEPTO-IODO-EIGON.—See under *eigons*.

PEPTOLACTINE is a preparation similar to lactopeptine—consisting of pepsin, pancreatin, maltose, diastase and lactic and hydrochloric acids. Dose, 5 to 10 grains. —Mfrs.: Penn Pharm. Co., Philadelphia, Pa.

PERCUTILAN is the name given to a readily absorbed ointment base. It forms the base of prevalidin.—Mfrs.: Wollwäscherei und Kämmerei, Döhren, Germany.

PERGENOL, a so-called "solid peroxide of hydrogen," is said to be a mixture in molecular proportions of sodium perborate and sodium bitartrate, forming when dissolved in water hydrogen dioxide, boric acid and neutral sodium tartrate.—Mfr.: Dr. Hy. Byk, Charlottenburg, Germ.

PERHYDROL is a 30 per cent. (by weight) solution of hydrogen peroxide, claimed to be chemically pure and free from acid. Its medical uses are the same as the official (3 per cent.) solution.—Mfr,: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

PERIPLOCIN, $C_{30}H_{48}O_{12}$, is a glucoside obtained from periploca græca. It occurs as a whitish to yellow powder or crystals, soluble in water and alcohol, slightly soluble in ether. It is a cardiac tonic, for subcutaneous use—1/60 grain dissolved in physiological salt solution once daily or every second day.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

PERISTALTIN is defined as a glucoside or group of glucosides obtained from cascara sagrada. It occurs as a yellowish-brown, hygroscopic powder that is readily soluble in water or diluted alcohol. It is a cathartic, and, owing to its being soluble in water, may be used also hypodermically. Dose per os, 1½ to 3 grains; subcutaneously (*in urgent cases*), 7½ grains. Marketed as powder, tab-

lets and sterile ampoules.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switz.; agts.: A. Klipstein & Co., New York.

PERISTALTIC HORMONE.—See *hormonal*.

PERMAGNODAT is a *magnesium perborate* as made by Chem. Fabrik, Coswig-Anhalt, Germ.

PEROGEN *(oxygen bath salt)* is a preparation consisting of a catalyzer and sodium perborate capable of yielding 10 per cent. of oxygen, the two substances being wrapped separately. The catalyzer is a light-yellow, odorless powder, a medicinally indifferent substance. It is employed in cardiac affections, neuroses, insomnia, etc. Dose, one bath daily.—Mfrs.: Morgenstern & Co., New York.

PERONIN is the arbitrary name given to *benzyl-morphine hydrochloride*, $C_{17}H_{18}NO_2.O.CH_2.C_6H_5.HCl$, a white bitter powder, soluble in water and diluted alcohol, introduced as a substitute for morphine but latterly largely superseded by heroin (diacetyl-morphine) and dionin (ethyl-morphine hydrochloride). Dose, ¼ to ¾ grain.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

PEROXOLS are 3 per cent. hydrogen peroxide solutions containing in addition 1 per cent. of camphor, menthol, thymol or other disinfectants, respectively, in alcoholic solution. See *camphoroxol*, *menthoxol*, and *thymoxol*.—Mfr.: C. Raspe, Weissensee, Germ.; agts.: C. Bischoff & Co., Inc., New York.

PEROXYDOL is the name applied to *sodium perborate*, as marketed by Kirchhoff & Neirath, Berlin N, Germ.

PERU-ESTON and PERU-FORMESTON.—See under *estoa*.

PERUGEN is synthetic *balsam of peru*.—Mfrs.: Evers Bros., Düsseldorff, Germany.

PERU-LENICET.—See under *lenicet*.

PERULIN is a wound ointment consisting of zinc oxide 2 parts, liquid petrolatum 5 parts, japan wax 1 part, peru balsam 1 part, lead acetate 1 part, carbolic acid 1 part and wool-fat 15 parts.—Mfr.: G. Pflug, Zittau, Germany.

PERUOL is a 25 per cent. solution of peruscabin in castor oil, used as a paint in scabies.—Mfrs.: Akt-Ges. für Anilin-fabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

PERUSCABIN is synthetic *benzoic acid benzyl ester*; a nearly colorless liquid, of peculiar not exactly disagreeable odor, and soluble in alcohol and ether; specific gravity 1.12. It is used in scabies and other parasitic skin diseases, in oily solution—generally as peruol.—Mfrs.: Akt-Ges. für Anilin-fabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

PERVACTATA are concentrated infusions and decoctions prepared in vacuo 1 c.c. representing 1 gram of the drugs.—Mfr.: Fr. von Clewitt, St. Vith, Germ.

PESOTTA PILLS are reported to contain potassium permanganate prepared by saponification of the fat contained in

yolk of egg. They are especially designed as a remedy for heartburn. Dose, 1 to 3 pills, as required.

PETROGEN is a "modified mineral oil" readily emulsifying with water and said to be possessed of great penetrating power when applied to the skin. It is used as a vehicle and solvent for iodine, creosote, iodoform, guaiacol, menthol, etc., analogously to *vasogen*, and is marketed combined with these drugs. Its combinations are used topically to produce the constitutional effects of the drugs they contain.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

PETRONOL is "a pure hydrocarbon oil," probably official *liquid petrolatum*.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

PETROSULFOL is an Austrian analogue of *ichthyol*.—Mfrs.: G. Hell & Co., Troppau, Austria.

PETROSULFOL ALBUMINATED is an Austrian analogue of *ichthalbin*.

PETROVASOL is a substitute for ichthyolvasogen, containing 10 per cent. of petrosulfol and 90 per cent. of liquid vasol. It is employed locally in various inflammatory processes.—Mfrs.: G. Hell & Co., Troppau, Austria.

PHENALGIN *("ammoniated phenylacetamide")* (phenylacetamide being acetanilid), occurs as a white powder of slightly pungent odor but non-pronounced taste, and nearly insoluble in water. According to analyses made at the instigation of the American Medical Association, it is "a mixture containing the following ingredients approximately in the proportions given: acetanilid 57 parts, sodium bicarbonate 29 parts and ammonium carbonate 10 parts." Its action is that of acetanilid—antipyretic and antineuralgic. Dose, 5 to 20 grains, usually as tablets (2½ grains) or capsules (5 grains).—Mfrs.: Etna Chem. Co., New York.

PHENAMINE.—See *phenocoll hydrochloride*.

PHENAZONE is the B. P. name for *antipyrin*.

PHENETIDIN CITRATE.—See *citrophen*.

PHENICHTHOL is a compound ointment of ichthyol and phenol, containing 2 per cent. of the former besides alum and lead plaster.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

PHENO-BROMATE is a mixture of acetanilid, sodium bromide and milk sugar, marketed as powders weighing about 14 grains each. It is exploited as an analgesic and sedative, in nervous headache, dysmenorrhea, etc.—Mfrs.: Pheno-Bromate Chem. Co., New York.

PHENOCOLL HYDROCHLORIDE *(amido-acet-paraphenetidin* or *glycocoll-phenetidin hydrochloride; phenamine)* $C_6H_4(OC_2H_5)(NH.CO.CH_2.NH_2)HCl$, is a white, crystalline powder, of sweetish-bitter taste, soluble in alcohol and in about 16 parts of water. It is used as an antipyretic and antimalarial. Dose, 5 to 20 grains; hypodermically, 4 to 8 grains. Incompatible with alkalies and

their carbonates, ferric chloride, and piperazin.—Mfrs.: E. Schering, Berlin, Germ.; agts.: Lehn & Fink, New York.

PHENOCOLL SALICYLATE, also known as *salocoll*, forms fine, white needles, having a sweetish taste, soluble in about 200 parts of water, more freely soluble in alcohol. It is used as an antirheumatic and analgesic, like the salicylates. Dose, 10 to 20 grains several times daily.

PHENOLACTIN is a synonym of *lactophenin*.

PHENOL-BISMUTH *(bismuth carbolate)* is a white, neutral, non-caustic powder, of slight odor and taste, containing 80 per cent. of bismuth oxide and 20 per cent. of phenol. It is employed as a gastro-intestinal disinfectant. Dose, 5 to 15 grains, several times daily.—Mfrs.: Heyden Chem. Works, Radebeul, Germ.; agts.: Schering & Glatz, New York.

PHENOLID is an antipyretic and analgesic consisting, according to reports, of equal parts of acetanlid and sodium bicarbonate. Dose, 5 to 10 grains.

PHENOLPHTHALEIN *(dioxyphthalophenone, dioxydiphenylphthalide, paraphthalein)*, $C_{20}H_{14}O_4$, is produced by the interaction of phenol and phthalic anhydride. It occurs as a yellowish-white or grayish-white, odorless, tasteless powder, soluble in 10 parts of alcohol and in about 600 parts of water. Its solutions are colorless and remain so if added to neutral or acid liquids, but if added to solutions of alkali hydroxides or carbonates they produce a red color. For many years the only use of phenolphthalein was as an indicator in chemical reactions. In 1901, however, Dr. von Vamossy, of the Pharmaceutical Institute at Budapest (Hungary), called attention to the *laxative* effect of the drug; and since then it has been exploited under a variety of proprietary names, a number of which will be referred to below. It is said that not much of the chemical is absorbed, and what does enter the system is excreted by the kidneys without producing renal irritation; the greater part of it is eliminated unchanged with the feces; it does not appear to be toxic. Dose, 1½ to 5 grains; children ¾ to 1½ grain.—(Nonproprietary.)

PHENOL SODIQUE is a reddish-brown, somewhat alkaline liquid having a cresol-like odor and specific gravity 1.009. No carbon dioxide is set free on addition of acids. On evaporation and ignition a residue remains which contains sodium. The product gives the characteristic reactions of phenols. While analogous to the National Formulary *solution of sodium carbolate* it differs from it in appearance and odor. It is used as an antiseptic, disinfectant and germicide.—Mfrs.: Hance Brothers & White, Philadelphia, Pa.

PHENOLSULPHONEPHTHALEIN is prepared by heating orthosulphobenzoic acid anhydride with twice its molecular weight of phenol. It occurs as a vermillion-red powder, sparingly soluble in water, yielding an orange-yellow solution which becomes bordeaux red upon the addition of

one molecule of sodium hydroxide and purple with an excess of alkali. It is soluble in alcohol but insoluble in ether. It is used as a renal functional test, injected into the lumbar muscles in the form of an aqueous solution of its monosodium salt containing 6 milligrams to 1 c.c..—Mfrs.: Hynson, Westcott & Co., Baltimore, Md.

PHENOPYRIN *(antipyrin carbolate)* is a compound of 1 part of phenol and 2 parts of antipyrin; an oily, colorless and odorless liquid, soluble in alcohol and ether, but insoluble in water. It is used chiefly externally, as an anodyne; internally as an antiseptic. Dose, 3 to 15 grains.—(Nonproprietary.)

PHENOSAL *(para-phenetidin salicyl-acetate)* occurs as a white powder, having a sour-bitter taste, and sparingly soluble in water, alcohol and ether. It has antipyretic and antineuralgic action. Dose, 5 to 15 grains several times daily, in powders or tablets.—Mfrs.: Dr. Hofmann Nachf., Meerane, Saxony; agts.: Lehn & Fink, New York.

PHENOXYPROPANEDIOL.—See *antodyne.*

PHENYLDIHYDROQUINAZOLINE TANNATE. — See *orexine.*

PHENYL-DIMETHYL-PYRAZOLON is a chemical synonym of *antipyrin.*

PHENYL-ETHYL-URETHANE and PHENYL-ETHYL CARBAMATE are synonymous terms for the product marketed as *euphorine.*

PHENYL-METHYL-KETONE.—See *hypnone.*

PHENYLON is one of the numerous synonyms of *antipyrin.*

PHENYLQUINOLINECARBONIC ACID.—See *atophan.*

PHENYL SALICYLATE is the official name for *salol.*

PHENYL-URETHANE.—See *euphorine.*

PHENZOLINE is a synonym of *cedrarine* and *orexine.*

PHENZOLINE HYDROCHLORIDE is an English name for the article known as *orexine hydrochloride.*

PHENZOLINE TANNATE is an English name for the article known on this continent and in Germany as *orexine tannate.*

PHOBROL is a solution of chlor-meta-cresol, used as an external antiseptic and germicide.—Mfrs.: Hoffman-La-Roche Chem. Works, Basle (Switzerland) and New York.

PHOSPHAGON is a liquid nerve nutrient and restorative, "each fluid ounce of which represents alcohol 16 per cent., compound glycerophosphates 24 grains, cerebromedullary extract (bovine) 20 grains, phytophosphates 20 grains, and tincture nux vomica 16 minims." Dose, 1 to 2 teaspoonfuls three times daily.—Mfrs.: Arlington Chem. Co., Yonkers, N. Y.

PHYLACOGEN is a generic name applied by Parke, Davis & Co., Detroit, Mich., to a line of modified vaccines *prepared according* to the process of Dr. A. F. Schaefer, of *Bakersville, Cal.* They are used hypodermically, as a rule *once daily, in doses* of 5 to 20 c.c. Thus far an erysipelas,

a *gonorrhea*, a *mixed infection* and a *rheumatism* phylacogen have been introduced.

PHYSIOLOGICAL NUTRITIVE SALT or BLOOD SALT is what Naegeli calls a mixture of potassium chloride, phosphate and sulphate; sodium phosphate, chloride, and carbonate; calcium phosphate and fluoride; magnesium sulphate; manganese sulphate; iron sulphate and phosphate and silicic acid—all in the proportions in which they exist in the blood. It is marketed only in 0.1 gram tablets, and is used chiefly in arterial sclerosis. Dose, 2 or 3 tablets per day.—Mfr.: C. F. Hausmann, St. Galen, Switzerland; agts.: Ernest Bischoff & Co., New York.

PHYSOL *(physiological solvent)* is, according to M. I. Wilbert, an efficacious and stable pepsin solution, consisting of pepsin (50), menthol (0.5), eucalyptol (0.5), oil of wintergreen (0.5), alcohol (10), glycerin (50), diluted hydrochloric acid (20), and distilled water (to make 1000). —(Nonproprietary.)

PHYSOSTIGMINE SULPHITE (not *sulphate*), $C_{15}H_{21}N_3O_2)_2H_2SO_3$, is a white, apparently amorphous powder soluble in water and in alcohol. Its solutions keep for weeks without turning red, and it is therefore offered as a succedaneum for eserine sulphate and salicylate, particularly in eye practice.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

PHYSOSTOL is a 1 per cent. sterilized solution of physostigmine alkaloid in olive oil, used as a myotic.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

PHYTIN *(vegetable phosphorus)* is described as the calcium and magnesium double salt of anhydro-oxymethylene-diphosphoric acid, occurring in the seeds of various plants; a white, odorless, nearly tasteless powder, containing 22.8 per cent. of phosphorus and soluble in water. It is prescribed as a nerve and bone nutrient in children. It is marketed as tablets, 4 of which constitute the adult daily dose; 1 to 2 that for children.—Mfrs.: Ges. für Chem. Industrie, Basle, Switzerland; agts.: Sharp & Dohme, Baltimore, Md.

PHYTIN SACCHARATED is a palatable powder, each 15 grains of which contains ½ grain of phytin. It is intended for use in children.—Mfrs.: as preceding.

PHYTOROIDES are tablets each containing extract thyroid gland 1 grain, poke berries ½ grain, bladder-wrack 1 grain, and pancreatin with guaiacol carbonate 1 grain. They are prescribed as an obesity remedy. Dose, 2 tablets after meals.—Mfrs.: Phospho-Albumen Co., Chicago, Ill.

PICRATOL *(silver picrate; silver trinitrophenolate)*. $C_6H_2O.(NO_2)_3Ag+H_2O$, is a yellow, flocculent substance, containing 30 per cent. of silver, soluble in 50 parts of *water and 60* of alcohol, and also soluble in glycerin, ether, *or chloroform*. It is used like argyrol and protargol.—*Mfrs.:* John Wyeth & Bro., Philadelphia, Pa.

PICROL is chemically potassium dilodo-resorcin mono-

sulphonate, $C_6HI_2(OH)_2.SO_3K$, and occurs as a white odorless bitter powder, soluble in water and glycerin, and containing 52 per cent. of iodine. It is an external antiseptic, analogous to sozoiodole.

PICROSE suppositories contain silver trinitrophenolate (picratol) and a little anesthesin. They are marketed as vaginal, urethral and rectal.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

PICROPYRIN is *antipyrin picrate*, a compound of 118 parts of antipyrin with 229 parts of picric acid.

PICROTOXIN *(cocculin)* $C_{45}H_{50}O_{19}$ is a neutral principle obtained from cocculus indicus (fish berries). It occurs as colorless, odorless, bitter crystals, soluble in about 330 parts of water and 10 parts of alcohol. It has been used as an antihydrotic, antispasmodic and stomachic in doses of 1/100 to 1/30 grain. Latterly it has been recommended as a means of preventing post-anesthetic vomiting following chloroform anesthesia. For this purpose 15 minims of a 0.2 per cent. solution are injected hypodermically shortly before the operation; should vomiting nevertheless set in the injection is repeated, half the dose being used. —(Nonproprietary.)

PIGNADON is another brand name for the chemical described herein under the title *pyramidon*.

PIPERAZIN *(diethylene-diamine; pyrazin hexahydride; piperazidin; ethylene-imine)*, $C_4H_{10}N+6H_2O$, results from the action of ammonia upon ethylene chloride. It occurs as colorless, hygroscopic crystals, very freely soluble in water, less readily in alcohol. It is employed as a supposed solvent of uric acid in gouty conditions. Dose, 15 to 30 grains per day, in water. It should be kept well stoppered and in a dry place, as it readily absorbs moisture and carbonic acid from the atmosphere. It precipitates many alkaloids from solutions of their salts, owing to its alkalinity. This may be avoided by first neutralizing the drug in solution. Marketed also as water (15 grains in a quart) and as 1-gram tablets (10 in a tube).—Mfrs.: E. Schering, Berlin, Germ.; agts.: Lehn & Fink, New York, and Farbenfabriken of Elberfeld Co., New York.

PIPERAZIN QUINATE (or *chinate*) is the chemical designation for *sidonal;* see this title.

PIPERAZIN SALICYLATE is a chemical compound of 1 molecule of piperazin with 2 molecules of salicylic acid. It is soluble in water, alcohol or ether, and is offered as a gout and rheumatism remedy. Dose, 5 to 15 grains.

PICCAROL.—See *ichden*.

PISCIOL *(ammonium sulpho-picciolate)* a preparation stated to be analogous to ichthyol.—Mfrs.: Hoeckert & Michalowsky, Neuköln, Berlin, Germany.

PITUGLANDOL is a sterile liquid preparation of the infundibular portion of the pituitary gland, each cubic centimeter of which represents 0.1 gram of fresh gland. It is used in cardiac debility, acromegaly, climacteric disturb-

ances and as an oxytocic and post-partum uterine contractor. Dose, the contents of one of the 1.1 c.c. ampoules, subcutaneously.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

PITUITARY EXTRACT is made from the pituitary body of the ox. One grain represents 5 grains of the fresh gland. It is used in acromegaly and other ailments. The extract of the anterior lobe of the pituitary body is used pretty much as the extract of the whole gland is. The posterior pituitary extract is a heart stimulant and diuretic, given internally or hypodermically.—Mfrs.: Armour & Co., Chicago, Ill.

PITUITRIN is a liquid extract of the posterior or infundibular portion of the pituitary gland (hypophysis cerebri), each cubic centimeter of which represents 0.1 gram of fresh gland and 0.09 gram of chloretone as preservative. It is said to be a uterine, arterial and cardiac tonic, and has latterly been recommended as a parturient and also suggested as a galactagogue. Dose, 10 to 30 minims.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

PITUITARY GLAND, the infundibular portion, has been tried in cardiac debility and as a diuretic, also in acromegaly and debility arising from functional disturbances. The dried substance is given in doses of 1 to 4 grains, in powders or tablets.

PIX-CRESOL is defined as "a salt obtained either from tar or guaiacol; $C_5H_6N.SO$; non-toxic, non-volatile"; a deodorizer, medicinal antiseptic and antipyic.—Mfrs.: Pix-Cresol Chem. Co., Kansas City, Mo.

PIXOL is a mixture of 3 parts of wood tar, 1 of potash soap and 3 of 10 per cent. potassa solution; a clear, thick, dark-brown liquid miscible with water. It is used as a disinfectant, in 2 to 5 per cent. solutions.

PLASMODYNE is an antiseptic poultice material on the order of the official *cataplasm of kaolin*. It is intended as a substitute for the old-fashioned flaxseed poultice, in congestive and inflammatory conditions.—Mfrs.: McKesson & Robbins, New York.

PNEUMOSAN is a tuberculosis remedy being advertised in the foreign medical press, and defined as *amylthiotrioxymethylamine*. It is used hypodermically. Further data are as yet wanting.—Mfrs.: Pneumosan Chem. Works, London, Eng.

POLLANTIN is the name applied to Dunbar's hay fever serum, an antitoxin serum from horses treated with pollen toxin derived from ragweed, goldenrod and rye. It is marketed in powder, liquid and ointment forms, and used for the relief of attacks of hay fever and rose cold and as preventive. The liquid is used mostly on the eye, the powder and ointment in the nose.—Mfrs.: Schimmel & Co., Miltitz, Germany; agts.: Fritsche Brothers, New York.

POSLAM is a gray ointment of the consistency of petrolatum and possessing a tarry odor. Qualitative examina-

tion in the laboratory of the American Medical Association demonstrated the presence of zinc oxide (12.01 per cent), sulphur (6.67 per cent.), corn starch (22 per cent.), tar oil (15.8 per cent.), menthol and salicylic acid (small quantities), and fatty base (probably petrolatum). The article is exploited as a remedy for eczema and other skin diseases.—Mfrs.: Emergency Laboratories, New York.

POTASSIUM GLYCERINOPHOSPHATE, $C_3H_7O_3PO(OK)_2+H_2O$, is marketed as 75 per cent. aqueous solution—a colorless to yellowish, viscid liquid, soluble in all proportions in water. It is used as a nerve tonic and reconstructive, chiefly subcutaneously. Dose, hypodermically, 3 or 4 grains once daily in sodium chloride solution; per os, 4 to 10 grains thrice daily as solution or syrup. Its liquid preparations are prone to spoil on keeping, hence are best prepared in small quantities at a time. A drop or two of chloroform to the fluid ounce renders them far more stable.—(Nonproprietary.)

POTASSIUM OXYQUINOLINE-SULPHATE is better known as *chinosol*, which see.

POULTOGEN is a poultice material on the style of the official kaolin poultice, containing kaolin, glycerin, boric acid, iodine, thymol, and oils of pine and wintergreen.—Mfrs.: Poultogen Co., Manchester, England.

PROBILIN Pills as now marketed contain salicylic acid 3/10 grain, sodium oleate 1½ grains, sodium stearate ⅜ grain, phenolphthalein 3/20 grain, and camphorated menthol 9/20 grain. They act as a cholagogue, and are hence used in diseases of the biliary passages. Dose, 3 or 4 twice daily.—Mfrs.: Goedecke & Co., Berlin, Germ.; agts.: Schering & Glatz, New York.

PROFERRIN is defined as an "iron nucleo-proteid, an organic compound of iron and phosphorus, containing 10 per cent. of organic iron and about ½ per cent. of phosphorus." It occurs as a reddish-brown powder, insoluble in water and acid solutions, but soluble in alkali solutions with production of a yellowish-red solution. It is employed as a hematinic and nerve nutrient. Dose, 3 to 6 grains.—Mfr.: H. K. Mulford Co., Philadelphia, Pa.

PROFERRIN COMPOUND is said to consist of proferrin 3 grains, strontium arsenite 1/60 grain, strychnine phosphate 1/100 grain, extract cascara ¼ grain and extract gentian ¼ grain per tablet.—Mfr.: M. K. Mulford Co., Philadelphia, Pa.

PROPAL is a trade name for *dipropylbarbituric acid (proponal)*.

PROPESIN is the trade name adopted for the *propyl ester of para-aminobenzoic acid*, or *propyl aminobenzoate*, a substance to which the chemical formula $C_6H_4.NH_2.COOC_3H_7$ has been assigned. The substance occurs as white crystals somewhat sensitive to light and of faintly alkaline reaction. It is sparingly soluble in water, but freely soluble in alcohol, and other organic solvents. Fatty oils, such as

almond and olive oils, will dissolve about 7 per cent. of the chemical without the aid of heat. Propesin is used as a local anesthetic for all mucous surfaces. *Propesin colloid* or *colloidal propesin* consists of 20 per cent. of propesin, 72.5 per cent. of glycerin, 2.5 per cent. of starch and 5 per cent. of alcohol. It is a milky emulsion which separates on standing and can be admixed with water in any proportion. It is used on wounds, inflamed mucous membranes, etc.—Mfrs.: Franz Fritzsche & Co., Hamburg, Germ.; agts.: Parmele Pharm. Co., New York.

PROPHYLACTICUM MALLEBREIN is a new throat antiseptic and astringent, representing *neutral aluminum chlorate* of the formula $Al(ClO_3)_3$. It is used in 1-per cent. solution, by inhalation or as a gargle.—Mfrs.: Krewel & Co., Cologne (Germ.); agts.: Lehn & Fink, New York.

PROPIONYL-PHENETIDIN is the chemical designation for the article marketed as *triphenin*, which see.

PROPONAL *(dipropylmalonylurea* or *dipropylbarbituric acid)* is allied chemically to veronal (diethylmalonylurea). It occurs as a colorless crystalline substance, soluble in 1640 parts of water, freely soluble in alkaline liquids and in alcohol. It is a hypnotic. Dose, 3 to 8 grains.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

PROPOSOTE is defined as *creosote phenylpropionate*, and occurs as a straw-colored liquid having the specific gravity 1.104, neutral in reaction, insoluble in acids, soluble in alcohol and ether, slowly decomposed by alkalies, nearly odorless, of a creosote-like taste, and containing about 50 per cent. of creosote. It is offered as a succedaneum for creosote. Marketed only in 10-minim gelatin globules. Dose, 10 to 30 minims.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

PROPYLAMINE.—See *trimethylamine solution*.

PROPYL AMINOBENZOATE.—See *propesin*.

PROTAN *(Mulford's tannin nucleo-proteid)* is a light-brown, tasteless, odorless powder, containing about 50 per cent. of tannin combined with casein, and insoluble in water or dilute acid solutions. It is employed as an intestinal astringent. Dose, 20 to 30 grains every hour or two if necessary.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

PROTAN COMPOUND is described as containing in each tablet protan 2 grains, bismuth subnitrate ¼ grain, zinc sulphocarbolate ⅛ grain, pancreatin ⅛ grain, powdered ginger 1/16 grain, guaiacol, 1/20 grain, and oil of anise q. s. It is employed as an intestinal antiseptic and astringent. —Mfr.: H. K. Mulford Co., Philadelphia, Pa.

PROTARGOL *(silver-proteid)* is a compound of albumin and silver. It occurs as a light-brown, bulky powder containing 8 per cent. of metallic silver, readily soluble in water or glycerin, and not precipitated by alkalies, alkali sulphides, albumin or sodium chloride. It is used exter-

nally as an astringent bactericide—chiefly in gonorrhea and purulent eye diseases, but also in nose and throat troubles, ulcers, etc. In gonorrhea ¼ to 2 per cent. solutions are employed; in eye diseases ½ to 5 per cent. solutions; in ear, nose and throat troubles 2 to 10 per cent. solutions; and on ulcers, etc., 5 per cent. ointments or dusting powders. There would probably be the same risk of permanent discoloration of the skin from any internal use of this preparation as from silver nitrate. Its solutions must be made with *cold* water, and kept in dark bottles; and contact with metallic objects must be avoided. To prepare solutions, place the drug in a glass or porcelain mortar containing a little cold water; stir into a thick paste, and gradually add more water, according to the strength desired. Or sprinkle the powder gently upon the surface of the required quantity of cold water, and then cover the vessel and set aside until solution has been effected. If it be desired to rub down protargol in a mortar, the latter as well as the pestle should be moistened with a drop of glycerin. Bougies and suppositories of the remedy are made by various firms. Keep the bottle in a dry, cool place, and protected against light. Protargol stains on the linen when fresh readily disappear on washing with soap and water. Old stains should be treated with solution of potassium iodide, sodium hyposulphite, etc.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

PROTEINUM PYOCYANEUM (HONL) is an extract of cultures of the bacillus pyocyaneus; a greenish-yellow, faintly alkaline liquid of an odor reminding of tilia flowers, that retains its efficacy for a long time if kept in a cool, dry, and dark place. It has been used by Dr. Janowisky in ulcers of the leg, pure on gauze tufts.—Mfr.: E. Merck, Darmstadt, Germany; agts.: Merck & Co., New York.

PROTHAEMIN is a nutritive consisting of an organic combination of iron, phosphorus (as lecithin) and albumin, and occurs as a fine, dark-brown, odorless, tasteless, somewhat hygroscopic powder. Dose, 1 to 2 heaping teaspoonfuls.—Mfrs.: Goedecke & Co., Leipsic (Germ.); agts.: Schering & Glatz, New York.

PROTONUCLEIN is "a combination of all the nucleins in the body, with their surrounding protoplasm, separated in unchanged form from the lymphoid structures of healthy animals without the use of chemicals." It is used internally as a tissue-builder and in infectious diseases, and topically on surgical lesions. Dose, 3 to 10 grains three or four times daily, before meals. Marketed also as 3-grain tablets, 2-grain special tablets, special powder and ointment.—Mfrs.: Reed & Carnrick, Jersey City, N. J.

PROTYLIN *(phosphorus-albumin)* is a synthetic proteid, an organic compound of phosphorus and albumin, containing 2.7 per cent. of the former element (=6 per

cent. P_2O_5). It occurs as a white, odorless, tasteless powder, insoluble in water but soluble in alkaline liquids. It is offered as an assimilable, nontoxic form of phosphorus, in place of lecithin and the glycerinophosphates in cases of neurasthenia, rickets, scrofula, etc. Dose, 10 to 20 grains three times daily, in soup, broth, etc.; children, 4 to 15 grains. It must not be boiled with the food. *Bromprotylin* (bromated phosphorus-albumin) contains 2.7 per cent. of phosphorus and 4 per cent. of bromine organically combined with albumin, and is employed as a nerve-nutrient and sedative in hysteria, epilepsy and other neuroses. It is a faintly yellowish powder, of slight bromine taste and odor, not perceptible when mixed with food. Dose, 10 to 20 grains three or four times a day. *Fer-protylin* (ferrated phosphorus-albumin) is protylin with 2.3 per cent. of iron. It forms a white, odorless and tasteless powder, soluble in alkaline fluids and prescribed as a constructive and hematinic in doses of 10 to 20 grains thrice daily, in soup, broth, etc. Protylin and its combinations are marketed also as 0.25 gram tablets.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

PRUNOIDS are laxative tablets containing as their chief active ingredient 1½ grains of phenolphthalein together with cascara sagrada, de-emetinized ipecac and prunes. Dose, 1 to 3 tablets at bedtime.—Mfrs.: Sultan Drug Co., St. Louis, Mo.

PSEUDO-HYOSCYAMINE is an alkaloid existing beside hyoscyamine in dubosia. It is used as a sedative chiefly in the insane. Dose, 1/120 to 1/60 grain; in the insane, 1/30 to 1/10 grain, subcutaneously.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: E. Merck & Co., New York.

PUNICINE is a synonym of the well-known *pelletierine*.

PURGEN *(purgo)* is a tablet consisting essentially of *phenolphthalein*. Pudgen for *adults* contains in each tablet 0.1 gram, *baby* purgen 0.05 gram, and *strong* purgen 0.5 gram, of phenolphthalein.—Mfr.: H. Goetz, Frankfort-on-M., Germ.; agts.: Lehn & Fink, New York.

PURGETTAE are silver-coated tablets containing Kreuznacher salt and 50 per cent. of phenolphthalein.—Mfr.: Dr. Karl Aschoff, Bad Kreuznach, Germ.

PURGOLADE is the name given to laxative tablets each containing 1 grain of phenolphthalein.—Mfr.: C. Auerbach, Berlin, Germ.

PYOCYANASE is described as a preparation of the bacteriolytic enzyme contained in cultures of the bacillus pyocyaneus. It is used mainly as a local application in diphtheria, 3 to 4 c.c. being sprayed into the throat several times daily, and as a prophylactic of influenza and cerebrospinal meningitis by instillation into the nose. More recently it has also been tried in gonorrheal eye-disease, purulent ear inflammation, cancer, etc.—Mfrs.: *Sächsisches* Serumwerk, Dresden, Germ.

PYOKTANIN is the name given by Prof. Stilling, of

Strassburg, to pure *methyl violet*, which is a nature mixture of penta- and hexa-methyl-para-rosanilin hydrochloride; a violet powder soluble in 75 parts of water, 12 of alcohol, and 50 of glycerin, but insoluble in ether. It is occasionally prescribed as a surgical antiseptic and discutient, chiefly in veterinary practice; its disagreeable staining properties have caused it to be abandoned largely in human medicine. It has also been given internally in gastric and other visceral cancer. Used pure or in trituration with boric acid, or as ointment, or as a "pencil," or in 1:1000 to 1:100 solutions. It is incompatible with corrosive sublimate. Its stains may be removed by rubbing well with soap and washing with alcohol.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

PYOKTANIN, YELLOW.—See *auramine*.

PYONIN is a sulphur compound made by melting together sublimed sulphur and sugar, dissolving the fused mass when cold in water, and boiling the solution with soda ash. The sulphur lye thus obtained is used in making *pyonin ointment* (containing 20 per cent. of dissolved sulphur) and *pyonin soap* (containing 5 per cent. of pyonin), both having a brown color, and the soap contains also a little glycerin and resorcinol.—Mfrs.: Goedecke & Co., Leipsic, Germ.; agts.: Schering & Glatz, New York.

PYRALOXIN is the name given by Dr. P. G. Unna to *oxidized pyrogallol*, and recommended by him as a substitute for pyrogallic acid in skin diseases. It occurs as a black, insoluble powder, and is said to be non-irritating.—Mfr.: H. Mielck, Hamburg, Germ.; agts.: Lehn & Fink, New York.

PYRAMIDON *(dimethylaminoantipyrin; phenyldimethyldimethylaminopyrazolon)*, $C_{13}H_{17}N_3O$, is a derivative of antipyrin in which an H atom is replaced by a dimethylamino group; a white, almost tasteless, crystalline powder soluble in about 15 parts of water and readily soluble in alcohol or ether. It is an antipyretic and analgesic, largely used in the fever of consumptives. Dose, 6 to 8 grains, as powders or in solution. Incompatible with ferric chloride, spirit of nitrous ether and other substances incompatible with antipyrin; also oxidizing agents and acacia. *Pyramidon camphorate, neutral*, consists of 69 per cent. of pyramidon and 31 per cent. of camphoric acid, and has some antihidrotic action, though the antipyretic action predominates; dose, 8 to 12 grains. *Pyramidon camphorate, acid*, is a compound of 47 parts of pyramidon and 32 of camphoric acid, which occurs as a white crystalline powder soluble in 20 parts of water and 4 parts of alcohol, and which has still greater sweat-arresting power than the neutral camphorate, and used in phthiical fever. Dose, 10 to 15 grains. *Pyramidon salicylate* is a white crystalline powder soluble in *16 parts of* water or 6 parts of alcohol. It is specially intended for use in rheumatism and neuralgias. Dose, 8 to

12 grains.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

PYRAN.—See *pyrenol.*

PYRAZOLONUM PHENYLDIMETHYLICUM is the German Pharmacopœia name for *antipyrin.*

PYRAZOLONUM PHENYLDIMETHYLICUM SALICYLICUM is the designation of the German Pharmacopœia for *salipyrin,* which see.

PYRENOL (originally called *pyran*) is defined as "benzoyl-thymol-sodium benzoyl-oxybenzoate; a compound of benzoic acid, salicylic acid and thymol in the form of a water-soluble sodium salt." According to reports by Zernik, Thoms and others, it is essentially a mixture of equal parts of sodium salicylate and sodium benzoate admixed with a fused mixture of 1 per cent. of benzoic acid and 0.2 to 0.3 per cent. of thymol. It occurs as a white, slightly hygroscopic powder of aromatic odor and soluble in 5 parts of water and in 10 of alcohol. It is prescribed as an antipyretic and anodyne in pulmonary affections, rheumatism, etc. Dose, 8 to 30 grains, with cold water; hot solvents should be avoided. Marketed also as 0.5-gram tablets.—Dr. Arthur Horowitz, Berlin, Germ.; agts.: Schering & Glatz, New York.

PYREXIFUGE is a liquid antipyretic and analgesic each fluid dram of which contains acetanilide 1½ grains, lactophenin ¼ grain, acetphenetidin 1 grain, and citrated caffeine ½ grain. Dose, 1 to 2 fluid drams with water.—Mfrs.: Nelson, Baker & Co., Detroit, Mich.

PYROFERRINE is a hematinic tonic each fluid dram of which contains iron pyrophosphate 2½ grains and strychnine sulphate 1/100 grain, with a little free phosphoric acid to render the preparation stable. Dose, 1 to 2 fluid drams.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

PYROCTIN is another of the numerous composite antipyretics and anodynes, the base of which is acetanilid. Dose, 5 to 15 grains. Marketed also as 5-grain tablets, plain and in combinations.—Mfrs.: Pyroctin Co., Columbia, S. C.

PYRODIN.—See *acetyl-phenyl-hydrazin.*

PYROGALLOL-BISMUTH is described under *bismuth pyrogallate.*

PYROGALLOL DIACETATE.—See *saligallol.*

PYROGALLOL MONO-ACETATE.—See *eugallol.*

PYROGALLOL, OXIDIZED.—See *pyralozin.*

PYROGALLOL TRIACETATE.—See *lenigallol.*

PYROGLYCERIN is a synonym of *nitroglycerin.*

PYROZONE is a trade name for *solution hydrogen peroxide. Pyrozone, caustic,* is a 25-per-cent. ethereal solution of hydrogen peroxide, used in dentistry and dermatology.—Mfrs.: McKesson & Robbins, New York.

Q

QUARTONOL Tablets consist of the four "tonols" (glycerinophosphates: calcium (2¼ grains), sodium (2¼ grains), quinine (½ grain), and strychnine (1/200 grain). They are prescribed as nerve and tissue nutrients. Mfr.: E. Schering, Gerlin, Germ.; agts.: Schering & Glatz, New York.

QUIETOL is the trade name applied to *valeryl oxybutyreine*. The article occurs as needles that are freely soluble in water and in alcohol and have a feeble but disagreeable taste. It is used as a nerve sedative.—Mfrs.: Poulenc Frères, Paris, France, agts.: Parmele Pharm. Co., New York.

QUINACETINE is a base of the formula $C_{27}H_{31}NO_5$. Its *sulphate*, the only salt marketed, occurs as white, lustrous needles adhering in tufts, of a slightly astringent and bitter taste, and readily reduced to powder. It forms freely soluble acid salts, incompatible with metallic hydrates and with carbonates. Its action and uses are the same as those of quinine sulphate. Dose, 5 to 15 grains.—Marketed by Theo. Metcalf Co., Boston, Mass.

QUINARSIL.—See *chinarsil*.

QUINARSIN is an antiperiodic each fluid ounce of which contains quinine 4 grains, cinchonine 8 grains, sodium arsenate 1/16 grain, tincture nux vomica 1 minim, and potassium iodide 5 grains.—Mfrs.: Sharp & Dohme, Baltimore, Md.

QUINEONAL.—See *chineonal*.

QUINIFEBRIN is a mixture of 15 parts of quinine hydrochlorosulphate, 4 parts of acetanilid, and 1 part of paraformaldehyde. It is used in influenza, malarial neuralgia, etc. Dose, 5 to 20 grains, in capsules.

QUININE-BISMUTH SULPHOCYANATE is described under its trade name, *crurin*.

QUININE CARBONIC ESTER.—See *cuquinine*.

QUININE DIETHYLARBITURATE is marketed under the trade name *chineonal*.

QUININE ETHYLCARBONATE.—See *cuquinine*.

QUININE FORMATE, $C_{20}H_{24}N_2O_2.HCOOH$, occurs as white, bitter crystals soluble in water, alcohol or chloroform. It has been recommended by Catillon and Lacroix as a substitute for quinine, by hypodermic injection. Dose, 3 to 10 grains.

QUININE GLYCERINOPHOSPHATE, $C_3H_7O_3PO_3(C_{20}H_{24}N_2O_2)$, occurs as a white powder sparingly soluble in water, more freely soluble in alcohol, and containing 68 per cent. of quinine. It is used chiefly in malaria associated with nervous disturbances. Dose, 3 to 10 grains, usually in pills, three times a day. Liquid preparations of it do not keep well, but may be rendered more stable by the addition of a drop of chloroform per fluid ounce. It should

not be prescribed with carbonates, phosphates, or lead salts, lest decomposition ensue; and hot solvents should be avoided.—(Nonproprietary.)

QUININE GLYCYRRHIZINATE is a brown powder containing 25 per cent. of quinine, and only slightly bitter in taste. It is intended especially for children's use. Dose, about double that of quinine sulphate.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

QUININE GUAIACOL-BISULPHONATE.—See *guaiaquin.*

QUININE METHYLARSENATE or "ARRHENALATE," $(C_{20}H_{24}N_2O_2)_2.AsO.(OH_2)CH_3$, occurs as colorless, bitter crystals sparingly soluble in water. It is said to be well borne in daily quantities of 9 to 12 grains. Its action is that of an antiperiodic, and it is recommended in cases where the usual quinine salts are without effect.

QUININE PARA-AMIDOBENZOATE.—See *aurochinin.*

QUININE-PHYTIN *(chininphytin)* is defined as the quinine salt of anhydro-oxymethylene-diphosphoric acid. It occurs as a yellowish powder readily soluble in water, and containing 57 per cent. of quinine. It is used particularly in malarial cachexia and neuralgia. Dose, 15 to 30 grains per day.—Mfrs.: Basle Chem. Works, Basle, Switzerland; agts.: Sharp & Dohme, Baltimore, Md.

QUININE SALICYLIC ESTER.—See *saloquinine.*

QUININE SULPHOGUAIACOLATE is *sulphoguaiacin.*

QUININE TANNATE, BASIC, has the formula $C_{20}H_{24}N_2O_2.3C_{14}H_{10}O_9+10H_2O$, and occurs as a yellowish-white powder almost insoluble in water. It contains from 40 to 50 per cent. of quinine alkaloid.

QUININE AND UREA HYDROCHLORIDE *(carbamidated quinine dihydrochloride)*, $C_{20}H_{24}N_2O_2.HCl+CO(NH_2)_2.HCl+5H_2O$, occurs as white, odorless, bitter crystals or white powder, soluble in about one part of water and freely soluble also in alcohol. It contains 70 per cent. of quinine alkaloid. It has been used in severe cases of malaria hypodermically, 5 to 15 grains at a dose; and it has latterly come to the fore as a local anesthetic used in ½ to 2 per cent. solutions by injection and in 10 to 20 per cent. solutions as an application to mucous membranes.—(Nonproprietary.)

QUININE-URETHANE is a soluble compound of quinine obtained by heating together 2 parts of quinine hydrochloride, 1 of urethane, and 2 of water. It is intended especially for subcutaneous or intravenous injection.

QUINOLINE-BISMUTH SULPHOCYANATE. — See *crurin.*

QUINOLINE SULPHOSALICYLATE is described under its trade name *erseol.*

QUININOSOL is a trade name applied to *quinine-vasogen*, containing 5 per cent. of the alkaloid. It is intended

for use as a topic antiperiodic, analogously to quinine oleate.

QUINOLIV is "a palatable powder of pure sulphate of quinine with olive oil as a disguisant," used just like ordinary quinine sulphate.

QUINOSOL.—See *chinosol.*

R

RADAL is the name applied to a 20-per-cent. solution of protargol.

RADIOCARBENZYME is carbenzyme containing some radium and barium carbonate. It is intended for carrying out the radioferment therapy which consists of the combined action of enzymatic and radioactive substances.

RADIOCITIN is *radioactive lecithin.*—Mfrs.: Radium-Centrale, Berlin, Germ.

RADIOGEN is "a gaseous body with all the physical properties of a gas. On decomposition in the organism it emits alpha, beta and gamma rays. These activate the ferments of the body, particularly the autolytic and diastatic ferments, and reduce the urates in the blood to soluble compounds." It is believed that the therapeutic value of the foreign spas lies in their radioactivity; and this has led to the introduction of the various radiogen preparations: *water, injection, bath solution, compress,* and *earth.*—Mfrs.: Radiogen Gesellschaft, Charlottenburg, Germ.; agts.: Morgenstern & Co., New York.

RADIOL is described as a water-soluble product prepared from the radioactive mud of the springs at Kreuznach. *Radiol dauer compressen* (bandages) are used on swollen glands, tumors, and inflammation of the joints. *Radiol gelatin bandages* carry a 10-per-cent. suspension of radiol in gelatin. *Radiol suppositories* consist of cacao butter with 10 per cent. of radiol. *Radiol ointment* contains 10 to 20 per cent. of radiol. *Radiol soap* contains 3 per cent. of radiol.—Mfr.: E. de Haën, List, Germ.

RADIOPHOR is what Dr. Axmann has named a relatively cheap radioactive mass which is applied directly to the skin, to tumors or in cavities, or on sounds, catheters, etc.—Mfrs.: P. Beiersdorf & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

RADIOPYRIN is *radioactive acetylsalicylic acid,* marketed in 0.5-gram tablets.—Mfrs.: Radium-Centrale, Berlin, Germ.

RAMOGEN (Biedert) is a nutritive said to contain 1 part of albumin, 2 of fat, 4 of sugar, and ⅛ of salts. It is not the same as Biedert's cream mixture.—Marketed by L. Hoos, Chicago, Ill.

RECLUS' OINTMENT consists of iodoform (1), salol (2), boric acid (5), antipyrin (5), and vaselin (40).

REGULIN is a dry, tasteless preparation of agar-agar,

containing 25 per cent. of aqueous extract of cascara sagrada. Dr. Schmidt indorses it as a regulator of intestinal peristalsis. Dose, 1 to 2 teaspoonfuls, in jam.—Mfrs.: Chem. Fabrik. "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

REMARCOL is a brand name for *sodium fluoride.*

RENADEN is a lactose trituration of dried extract of pigs' kidneys, 1 part representing 2 parts of the fresh organ. It is prescribed in Bright's disease and uremia. Dose, 90 to 120 grains per day, as powder or 4-grain tablets.—Mfrs.: Knoll & Co., Ludwigshafen (Germ.) and New York.

RENALINA is an Italian designation for the active principle of the suprarenal gland, analogous to *epine-epinephrine.*

RENASTYPTIN is a solution of the vaso-constrictive principle of the suprarenal gland, analogous to *epinephrin.* —Mfrs.: Willones, Francis, Butler & Thompson, London, Eng.

RENNENE is "the milk-curdling principle of rennet in crystalline form." Its uses are the same as those of rennin.—Mfr.: John Wyeth & Bro., Philadelphia, Pa.

RESINEON *(ethereal pitch oil)* is the distillation product of crude tar oil distilled at 148° C. It has been used as a 1:8 ointment in chronic skin diseases.—Mfr.: E. Merck, Darmstadt, Germ.

RESOPYRIN *(resorcin-antipyrin; resorcinopyrin)* results from mixing solutions of resorcin and antipyrin. Colorless crystals soluble in alcohol, insoluble in water. It is an antiseptic and an antipyretic. Dose, 10 to 20 grains.

RESORBIN, as its name implies, is a readily absorbed ointment-base, consisting of oil of sweet almonds, soap, white wax, lanolin, and a solution of gelatin. It is used as a vehicle in the endermic administration of mercury, iodine and other drugs. Marketed also as *resorcin-mercury,* 33⅓ and 50 per cent.—Mfrs.: Akt.-ges. für Anilin-fabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

RESORBOL is a compound of iodine with higher fatty acids, for which the claim is made that it is readily absorbed by the skin. It occurs as a brown liquid containing 10 per cent. of iodine. It is miscible in all proportions with water or alcohol. It does not stain the skin or the linen, and can be readily removed from the skin with water.—Mfrs.: Chem. Fabrik "Tlém," Lemberg, Germ.

RESORCIN-ANTIPYRIN.—See *resopyrin.*

RESORCIN-CAMPHOR is obtained by melting together equal parts of resorcin and camphor, and forms a colorless oily fluid decommended for use in pruritus and parasitic skin diseases (especially for lice).—(Nonproprietary.)

RESORCINOL (not simple resorcin also called resorcinol in U. S. P.) is obtained by melting together equal parts of resorcin and iodoform. It occurs as a brown powder of *iodine* odor and iodoform taste, and was introduced as a

vulnerary and dermic; to be applied as a 20-per-cent. dusting-powder or as 6 to 12 per cent. ointments. Keep from light.—Mfr.: E. Merck, Darmstadt, Germ.

RESORCINOL-EUCALYPTOL is a white powder easily soluble in alcohol, sparingly soluble in water. Its solutions are used by inhalation in phthisis, fetid bronchitis, and the like, and in ointment it is used on wounds, skin lesions, etc.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

RESORCIN-HEXAMETHYLENETETRAMINE is described under *hetralin*.

RESORCIN MONOACETATE.—See *euresol*.

RESORCIN-SALOL, obtained by melting resorcin and salol together, was introduced some years ago as an intestinal antiseptic, but never met with much favor because offering no advantages over a simple mixture of its ingredients. Dose, 3 to 10 grains.—(Nonproprietary.)

RESORCINOLPHTHALEIN.—See *fluorescein*.

RESOSALYL is a French odorless, noncaustic liquid antiseptic and wound cicatrizant, made as follows: Melt together resorcin 22.2 grams. caustic potash 11.2 grams, and when melted add sodium sulphovinate 33.2 grams and salicylic acid 27.6 grams. When melted the heat is withdrawn and camphor 25 grams added. Finally the following mivture is added: powdered boric acid 20 grams, sodium borate 60 grams, benzoic acid 25 grams, sodium benzoate 15 grams, terpin hydrate 8 grams, glycerin 200 grams, water 200 grams. Heat on a water-bath to complete solution, and filter through cotton-wool.

RESPIRATIN, exploited in Japan by Dr. Kitao as an asthma remedy, consists, according to R. Ishizu, essentially of 1 per cent. of potassium guaiacolsulphonate and 99 per cent. of milk sugar.

RETINOL *(rosinol, rosin oil)* is a thick, yellow oil obtained by the distillation of rosin; specific gravity, 0.900; soluble in oils, ether, and alcohol. It is used as an ointment or liniment in skin diseases; technically as a solvent of phosphorus, salol, camphor, gums, etc. It has also been suggested as an excipient for phosphorus.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

REXOTAN *(methylene-tannin-urea)* is a condensation product of tannin, urea, and formaldehyde, to which the formula $C_{19}H_{14}N_2O_{10}$ has been assigned. It occurs as a yellowish-brown, odorless and tasteless powder; insoluble in the usual solvents and acid liquids; decomposed by alkalies with the liberation of formaldehyde. It is prescribed as an intestinal astringent and disinfectant. See caution under *formaldehyde*.—Mfr.: Dr. A. Voswinkel, Berlin, Germ.

RHEUMACIDE is the generic name adopted for several preparations. *Rheumacide A* is used in rheumatism, sciatica and influenza; *Rheumacide B*, in gout; *Rheumacide C*, in renal, vesical and cutaneous affections. According

to the analyses of Dr. F. Zernik, rheumacide A consists essentially of about 10 per cent. of salol, 23 per cent. of antipyrin, 9 per cent. of citric acid, and 58 per cent. of acetylsalicylic acid containing some free salicylic acid. Rheumacide B is composed approximately of a mixture of equal parts of salol and acetylsalicylic acid (aspirin) and 2 per cent. of citric acid. Rheumacide C consists of about 20 per cent. each of salol and antipyrin and a mixture of acetylsalicylic acid, free salicylic acid, and a small quantity of citric acid.

RHEUMACILATE is a brand of the official *methyl salicylate*.—Mfrs.: Fries Bros., New York.

RHEUMALGINE is a liquid antirheumatic and antigout remedy each fluid dram of which contains strontium salicylate from natural acid 5 grains, hexamethylenamine 2 grains, and colchicine 1/200 grain. Also marketed as tablets containing these same drugs and quantities.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

RHEUMASOL *(salicylated petrovasol)* consists of 80 per cent. of vasol and 10 per cent. each of petrosulfol and salicylic acid. It is used as a paint or inunction in swollen glands, lumbago, rheumatism, etc.—Mfrs.: G. Hell & Co., Troppau, Austria.

RHINALUM is the name applied to nasal wafers "each containing alum compound (nonirritating) 2 grains, corrosive sublimate 1/100 grain, hydrastis alkaloids 1/32 grain, ichthyol 1/30 grain, formaldehyde, lanolin, menthol, and cacao butter q. s." They are used in coryza and hayfever.—Mfrs.: Norwich Pharmacal Co., Norwich, N. Y.

RHODALINE is a synonym of *thiosinamine*.

RHODALZID is defined as a sulphocyanide (rhodanide)-albumin compound which does not develop any poisonous sulphocyanic acid on contact with dilute acids and is not toxic in itself. It is only partly soluble in water, swelling up in it somewhat like gelatin. It is marketed only as 4-grain tablets, and is intended for use in caries, arteriosclerosis, and the like. Dose, 2 or 3 tablets per day; children, ½ tablet twice daily.—Mfrs.: Chem. Fabrik Reisholz, Reisholz, near Düsseldorf, Germ.

RHOMNOGYRE is the mercury salt of rhomnol, hence *mercury nucleinate* and thus analogous to *mercurol*, which see for properties, uses, etc.

RHOMNOL is a French *nuclein* derived from the thymus gland.—Mfr.: Dr. M. Le Prince, Paris, France.

RHUPHEN is the name applied to laxative lozenges containing rhubarb 1½ grains, phenolphthalein 1 grain, and euonymin (brown) 1/16 grain. Dose, 1 to 4.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

RICILAN is an aromatized pure castor oil.—Mfr.: E. Rath, Frankfort-on-M., Germ.

RINGER'S SOLUTION is an artificial blood serum employed hypodermically or by the rectum in severe burns.

cramps of infants, etc. Two strengths are in vogue, the second formula following being the more frequently used (see also *serums artificial*):

	I.	II.
Sodium chloride	7.500	9.00 grams.
Calcium chloride	0.125	0.24 gram.
Potassium chloride	0.075	0.42 gram.
Sodium bicarbonate	0.125	0.30 gram.
Distilled water	1000.00	1000.00 grams.

To be sterilized.

RISTIN is a 25-per-cent. alcoholic solution of the monobenzol ester of ethyleneglycol, a colorless and odorless substance. It has been brought forward as a remedy for scabies, 50 grams mixed with a little glycerin being used for an inunction.—Mfrs.: Farbenfabriken of Elberbeld, Elberfeld (Germ.) and New York.

ROBINOL is a trade name for a compound solution of the glycerophosphates without sugar, such as is official in the National Formulary.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

ROBORAT is an albuminous nutrient occurring as a whitish, odorless, and nearly tasteless powder. Dose, daily, 2 to 4 tablespoonfuls mixed with food.—Mfr.: H. Niemöller, Gütersloh, Germ.

RODAGEN is a 50-per-cent. lactose trituration of a substance obtained from the milk of thyroidectomied goats and used as a remedy in Basedow's disease (exophthalmic goiter). Dose, 75 to 150 grains per day.—Mfrs.: Vereingte Chem. Werke, Charlottenburg, Germ.; agts.: V. Koechl & Co., New York.

RONOZOL is a brand name for a series of salts identical with the group of preparations designated as *sozoiodole*. See the latter heading.—Mfr.: Dr. A. Voswinkel, Berlin W, Germ.

ROSINOL.—See *retinol*.

RUBIDIUM salts have come into some vogue in recent years as substitutes for the corresponding potassium salts, the claim being made that they do not affect the stomach or heart deleteriously. Chief among them are the following: *Rubidium bromide*, RbBr, colorless crystals or a white powder, soluble in water. Dose, 5 to 15 grains. *Rubidium iodide*, RbI, white crystals freely soluble in water. Dose, 2 to 10 grains. *Rubidium and ammonium bromide*, $RbBr.3NH_4Br$, a yellowish-white powder soluble in water. Dose in epilepsy, 60 to 100 grains per day.—(Nonproprietary.)

RUBIFAX is a rubefacient ointment containing oleoresin of capsicum, camphor, oil of mustard, and oil of turpentine, combined with an aromatic neutral base.—Mfrs.: Sharp & Dohme, Baltimore, Md.

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SABROMINE is defined as *calcium dibrombehenate*, $C_{44}H_{86}O_4Br_4Ca$. It occurs as an odorless, white, tasteless powder, and is said to contain about 30 per cent. of bromine and about 3.8 per cent. of calcium. It is insoluble in water or alcohol but soluble in ether. It is offered as a succedaneum for the alkali bromides. Dose, same as of potassium bromide.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

SACCHARIN, now official under the name *benzo-sulphinide*, will be but briefly referred to, only such statements being made as may not be generally known to pharmacists and physicians. It is chemically definable as *benzoyl-sulphonic imide, ortho-sulphamine-benzoic anhydride, benzoic-acid sulphinide;* and is known in the trade also as *agucarina, garantose, gluside, neosaccharin, saccharinol, saccharinose; saccharol, saxine, sycose, toluol sugar, zuckerin*, etc. The refined or regular saccharin is an acid sparingly soluble in water (1:400) but dissolving in 30 parts of alcohol. *Soluble saccharin* (*crystallose*, etc.) is the sodium salt of saccharin pure, containing about 90 per cent. of the latter. While its uses are chiefly as a sweetening agent, it is occasionally prescribed as an acidifier of the urine in cystitis, as it is eliminated from the system unchanged. Dose, 2 to 5 grains, in tablets.

SACCHARINOL, SACCARINOSE, and SACCHAROL are synonyms of *saccharin*.

SAJODIN, $(C_{21}H_{42}ICOO)_2Ca$, is defined as *calcium monoiodobehenate*. It occurs as a white, odorless, tasteless powder, containing about 25 per cent. of iodine, insoluble in water, and turning yellow on exposure to light. It is intended as a substitute for the iodides when these are not well borne. Dose, 8 to 20 grains three times daily.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

SALACETIN is an analgesic and antipyretic, consisting, according to an analysis made in the laboratory of the American Medical Association, of a mixture containing the following ingredients approximately in the proportions stated: acetanilid 43, sodium bicarbonate 21, and ammonium carbonate 20. *Sal-codeia* is a mixture of salacetin 5 grains and codeine ¼ grain.—Mfrs.: Bell & Co., Orangeburg, N. Y.

SAL ANÆSTHETICUM SCHLEICH is used for "infiltration anesthesia" as introduced by Dr. Schleich, of Berlin. It is marketed as tablets, in three strengths: *strong*, containing cocaine hydrochloride 0.2 gram, morphine hydrochloride 0.025 gram, and sodium chloride 0.2 gram; *normal*, containing cocaine hydrochloride 0.1 gram, morphine hydrochloride 0.025 gram, and sodium chloride 0.2 gram; *and weak*, containing cocaine hydrochloride 0.01

gram, morphine hydrochloride 0.005 gram, and sodium chloride 0.2 gram. For use, 1 tablet is dissolved in 100 c.c. of sterilized water.—Mfrs.: Vertriebsges. Prof. Schleich, Berlin, Germ.

SAL-ETHYL is a trade name given to pure *ethyl salicylate* or *salicylic ether*. See ethyl salicylate. Marketed as 5-minim globules.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

SAL GREGORY is a mixture of morphine hydrochloride (97½ per cent.) and codeine hydrochloride (2½ per cent.); a white powder freely soluble in water, and employed like morphine hydrochloride and in about the same doses.—(Nonproprietary.)

SAL LAXA is a granular effervescent laxative salt "containing sodium sulphate 32 parts, sodium phosphate 30 parts, potassium and sodium tartrate 24 parts, lithium carbonate 2 parts, and caffeine ¼ part, combined with fruit acid."—Mfrs.: Sharp & Dohme, Baltimore, Md.

SAL PHYSIOLOGICUM POEHL is a white powder readily soluble in water, and containing all the active constituents of blood serum. A 1.5-per-cent. solution corresponds in saline content to blood serum. It is used for transfusions, also in irrigations and sprays for catarrhal inflammations (coryza, cystitis, etc.).—Mfrs.: Dr. A. v. Poehl & Sons, St. Petersburg, Russia; agts.: Lehn & Fink, New York.

SAL PURGANS is what *artificial Carlsbad salt* (sal Carolinum factitium) is called in Austria.

SAL RENALINE contains as its base "the active salts contained in European bitter waters, sodium phosphate, lithium phosphate, and renaline" (hexamethylenetetramine). It is used mainly in gout, rheumatism, and Bright's disease. See caution under *formaldehyde*.—Mfrs.: Independent Pharm. Co., Worcester, Mass.

SAL URISEPTIC is a granular effervescent salt of which "each dessertspoonful in solution contains 7½ grains of hexamethylenamine and 3 grains of lithium borocitrate"; a urinary antiseptic and antilithic. Dose, 1 to 2 drams.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

SALACOLL.—See *phenocoll salicylate*.

SALAMID is *salicylamide* as marketed by Wm. S. Merrell Chem. Co., Cincinnati, Ohio.

SALAZOLON is a synonym of *salipyrine*.

SALBROMALID is *antinervin*.

SALEN is a mixture of the methyl and ethyl glycolic acid esters of salicylic acid; an odorless, oily fluid readily soluble in alcohol, ether or castor oil, sparingly soluble in olive oil, and insoluble in water. It is used as an inunction in rheumatism, either undiluted or mixed with olive and castor oil or with chloroform and olive oil.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switzerland; *agts.: A. Klipstein & Co., New York.*

SALETIN is an English trade name for acetylsalicylic

acid, better known on the American market under the name of *aspirin*.

SALIBROMINE is, chemically, *dibromo-salicylic acid methyl ester*, $C_6H_2Br_2OH.COOH_3$. It occurs as a white, slightly odorous powder, and is employed as an antipyretic and antirheumatic in doses of 8 grains four to ten times daily.

SALICYL-ALPHA-METHYL-PHENYL-HYDRAZON is the chemical designation of *agathin*.

SALICYLAMIDE, $C_6H_4.(OH)CONH_2$, is obtained by causing dry ammonia to act upon methyl salicylate. It occurs as colorless or yellowish, tasteless plates, soluble in alcohol, ether or chloroform, only sparingly soluble in water. It is used mainly as an analgesic, like salicylic acid, but is stated to be better borne. Dose, 2½ to 5 grains.—(Nonproprietary.)

SALICYL-FORMALDEHYDE.—See *formasal*.

SALICYLIC ACID ACETYL-PARA-AMIDOPHENOL ESTER.—See *salophen*.

SALICYLIC ACID AMYL ESTER is a synonym of *amyl salicylate;* see this title.

SALICYLIC ACID BETA-NAPHTOL ESTER is referred to under *betol*.

SALICYLIC ACID ESTER OF SALICYLIC ACID.—See *diplosal*.

SALICYLIC ACID GLYCERIN ESTER.—See *glycosal*.

SALICYLIC ACID METHOXY-METHYL ESTER is a chemical designation for the article marketed as *mesotan*.

SALICYLIC ACID PHENYL ESTER is *salol*.

SALICYLOS is a granular effervescent salt each dessertspoonful of which is said to contain 10 grains each of strontium and ammonium salicylates, with an excess of sodium bicarbonate. It is used as an antirheumatic, antipodagric, and analgesic. Dose, 1 to 2 dessertspoonfuls.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

SALICYL-PHENETIDIN is given as a synonym of *saliphen*.

SALICYL-QUININE.—See *saloquinine*.

SALIFORMIN *(formin salicylate; hexamethylenetetramine salicylate)*, $C_6H_{12}N_4.C_6H_4.OH.COOH$, occurs as a white powder of acidulous taste and readily soluble in water and alcohol. It is prescribed as a genito-urinary disinfectant and gout remedy. Dose, 5 to 10 grains 3 or 4 times daily. See caution under *formaldehyde*.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

SALIGENIN.—See *diathesin*.

SALIGENIN TANNATE is described under *antiarthrin*.

SALIMENTHOL, defined by the manufacturers as *salicylic acid menthol ester*, is said to consist of a fused mixture of approximately equal parts of menthol and salicylic acid. It occurs as a light-yellow liquid of faint pleasant odor and almost tasteless. It is used externally as well as internally as an analgesic and anodyne, in chronic rheuma-

tism, myalgia, toothache, etc. A 25-per-cent. ointment of it is marketed under the name *samol*. Dose, 4 to 8 minims, in capsules.—Mfr.: Dr. B. Bibus, Vienna I, Austria.

SALINAPHTOL is a synonym of *betol*, which see.

SALINATES is a granular effervescent saline laxative and hepatic stimulant "each dessertspoonful of which represents 120 grains of the combined salines magnesium sulphate, sodium sulphate, and sodium phosphate." Dose, 2 drams.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

SALIODIN is defined as an "iodated aceto-salicylate, with adjuvants; a combination of salicylic acid, iodine, acetic acid, aconite, bryonia, colchicum, capsicum, and gaultheria." According to analyses made at the chemical laboratory of the American Medical Association, saliodin is a mixture approximately of sodium salicylate 57.34 per cent., potassium iodide 1.18 per cent., potassium acetate 30 per cent., matter volatile at 130° (oil anise, oil gaultheria, moisture, etc.) 8.1 per cent., extractive 3.18 per cent. It occurs as a grayish-pink powder, having an odor of anise, and soluble in 3 parts of water. It is used in rheumatism, gout, syphilis, and other diseases in which salicylic acid and iodine are indicated. Dose, 10 to 30 grains.—Mfrs.: Saliodin Chem. Co., Scranton, Pa.

SALIPHEN (not salophen), also designated as *saliphenin* and *salicyl-phenetidin*, occurs as colorless crystals readily soluble in alcohol and almost insoluble in water. It is a mild antipyretic and analgesic. Dose, 8 to 20 grains.

SALIPYRINE *(antipyrin salicylate; salazolon; salipyrazolon)*, $C_{11}H_{12}N_2O.C_7H_6O_3$, is a white, odorless powder, of sweetish taste with bitter after-taste; soluble in 250 parts of water, readily in alcohol, chloroform and ether. It contains 57.7 per cent. of antipyrin and 42.3 per cent. of salicylic acid. It is an analgesic and antirheumatic. Dose, 8 to 30 grains.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

SALIT is the terse name given to *borneol salicylic acid ester*, $C_{10}H_{17}O.COC_6H_4OH$, an oily liquid miscible in all proportions with alcohol, ether and fatty oils; slightly soluble in glycerin, and insoluble in water; alkalies decompose it into salicylic acid and borneol. It is prescribed as a topical antirheumatic and anodyne, usually diluted with an equal part of olive oil, which mixture is marketed as "*salitum solutum*." Dose, by inunction, 20 to 40 minims daily.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

SALITANNOL is a condensation product of salicylic and tannic acids, of the formula $C_{14}H_{10}O_7$, and occurring as a white powder insoluble in the usual solvents but soluble in caustic alkalies. It combines the antiseptic action of salicylic acid with the astringent action of tannin. It is used on wounds and in intestinal catarrh. Dose, 15 grains three or four times daily.—Mfr.: O. Daebner, Halle, Germ.

SALITHYMOL *(thymyl salicylate; salicylic acid thymyl*

ester), $C_6H_3.CH_3.C_3H_7O.COC_6H_4(OH)$, results from the action of phosphorus oxychloride or trichloride upon sodium thymolate and sodium salicylate. It forms a white, sweetish powder almost insoluble in water but readily soluble in alcohol and ether. It is employed as an intestinal antiseptic in the same doses as salol.

SALOCHININ.—See *saloquinine*.

SALOCOLL *(phenocoll salicylate)*, $C_{17}H_{20}N_2O_4$, occurs as white needles of a sweetish taste and soluble in hot water. It is prescribed as an antipyretic and anodyne. Dose, 10 to 20 grains.—Mfr.: E. Schering, Berlin, Germ.; agts.: Lehn & Fink, New York.

SALOCREOL is defined as a compound of the various phenols of beechwood creosote with salicylic acid, forming esters; so-called *creosote salicylic acid ester*. It occurs as a brown, oily, nearly odorless, neutral liquid, readily soluble in olive oil, alcohol, ether and chloroform, insoluble in water. It is used topically in facial erysipelas, chronic rheumatism, lumbago, etc., as a paint or by inunction, 45 to 180 minims one or more times daily, up to 1 fluid ounce per day. The skin should be perfectly dry before applying the salocreol, else an emulsion will be formed that prevents the penetration of the drug.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

SALOFORM is described as a chemical compound of hexamethylenetetramine (formin, etc.), salicylic acid, and lithium. It is used as a uric acid solvent and urinary disinfectant. Dose, 10 grains four times daily. Marketed also as 5-grain tablets and elixir (teaspoonful per dose). See caution under *formaldehyde*.—Mfrs.: Robinson-Pettet Co., Louisville, Ky.

SALOL?ACETAMIDE is an analogue of *salophen* made made by A. Voswinkel, Berlin W, Germ.

SALOL-CAMPHOR *(camphorated salol)* is a mixture of 3 parts of salol with 1 part of camphor; a yellowish, oily liquid soluble in alcohol, ether, chloroform and oils. It is used almost wholly externally, chiefly as a local anesthetic in toothache, neuralgia, etc., but also in certain skin diseases and otorrhea. Dose, 3 to 10 grains (in typhoid fever, etc.). It should be kept well stoppered.—(Nonproprietary.)

SALOPHEN *(salicylic acid acetyl-para-amido-phenol ester; acetyl-para-amido-salol; acet-amido-salol; acetyl-para-amido-phenyl salicylate)*, $C_6H_4OH.COO.C_6H_4NH.COCH_3$, forms a white, odorless, tasteless powder practically insoluble in water but readily soluble in alcohol, chloroform and ether; it contains 50 per cent. of salicylic acid; alkalies decompose it. It is used as an anodyne, antipyretic, and antiseptic. Dose, 5 to 15 grains three or four times daily; externally, in 10-per-cent. ointment.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

SALOQUININE *(salochinin; salicyl-quinine; quinine salicylic acid ester)* has the formula $C_6H_4OH.COO.C_{20}H_{23}N_2O$,

and occurs as a whitish, tasteless powder, insoluble in water, soluble in acidulated water, chloroform and hot alcohol, sparingly soluble in ether and cold alcohol. It contains about 73 per cent. of quinine. It is an analgesic, antiperiodic, and antipyretic, analogous to quinine. Dose, 10 to 30 grains, one to three times daily; in fever, it is best followed by a little hydrochloric acid and water.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ., and Farbenfabriken of Elberfeld Co., Elberfeld (Germ.) and New York, offered here also by Merck & Co., New York.

SALOQUININE SALICYLATE, known abroad also as *rheumatin*, $C_{34}H_{34}N_2O_3$, occurs in the form of a white, tasteless crystalline powder, sparingly soluble in water, but soluble in chloroform. It is an antirheumatic and antineuralgic, 15 to 20 grains three times daily.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts., Merck & Co., New York.

SALORICOL is the name given to soft capsules containing 5 grains of salol and 5 grains of castor oil.—Mfr.: Knapp's Drug Store, New York.

SALOSANTAL *(oleum salosantali)* is a 33⅓ per cent. solution of salol in oil of sandalwood and a little peppermint oil. It is used internally in gonorrhea. Dose, 5 to 15 minims. Marketed also in 0.3 and 0.5 gram capsules.—Mfr.: Dr. Halle, Schöneburg, Germ.

SALUFER is a name sometimes applied to *sodium silicofluoride*.

SALUMIN is described under *aluminium salicylate. Soluble salumin* is *aluminium and ammonium salicylate*.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

SALUTINE is described as "a combination of 'carbonyphenylacetates,' from oil of betula lenta with the active principles of paulinia sorbilis and theobroma cacao." It occurs as colorless crystals, of slightly bitter-acidulous taste, practically insoluble in water and dilute acids, but soluble in alcohol and alkaline liquids. It is intended as a succedaneum for sodium salicylate. Dose, 5 to 20 grains. Mfrs.: Yale Chem Co., New York.

SALVARSAN *(arsenobenzol;* Ehrlich-Hata's 606), as now marketed, is *paradiamino-dioxyarsenobenzol hydrochloride*, and occurs as a yellow powder containing about 31.5 per cent. of metallic arsenic and readily soluble on water. It has been brought forward as a succedaneum for the ordinary arsenic compounds as an alterative, but has gained special prominence as a remedy for syphilis employed by intravenous, intramuscular or hypodermic injection. For the latter disease the ordinary dose for men is 9 grains, women 6 grains, and children 3 to 4½ grains. Stock solutions of salvarsan should never be made. Chemical changes rapidly occur when the product is exposed, either in powder or solution, and these changes may render *salvarsan unsafe* for use. This can be avoided only *when the solutions* are used *immediately* after making. *Marketed in ampoules* containing 0.6 Gm., 0.3 Gm., 0.2 Gm.

and 0.1 Gm., respectively.—Mfrs.: Meister, Lucius & Brüning, Hoechst-on-M. (Germ.); agts,. Victor Koechl & Co., New York.

SAMOL.—See under *salimenthol.*

SANATOGEN is a glycerinophosphated sodium-casein, readily soluble in water; and containing 5 per cent. of sodium glycerinophosphate. It is used as a nutritive. Dose, 1 to 1½ ozs. daily, in warm milk, etc.—Mfrs.: Bauer & Cie, Berlin, Germ.; agts.: Bauer Chem. Co., New York.

SANAXis a coal-tar disinfectant and deodorant for general use, similar to creolin, kreso, etc.—Mfr.: Sharp & Dohme, Baltimore, Md.

SANGALBUMIN is an acid, peptonized blood-albumin, soluble in water, and claimed to be identical with the better-known *hemalbumin.*—Mfrs.: "Sicco," Berlin O, Germany.

SANGUIFORM is a liquid hematinic obtained from fresh ox-blood, "containing in each fluid ounce 2½ grains of natural organic iron, together with all the albuminous and saline constituents of 1¼ ounces of normal healthy blood." Dose, 1 to 2 teaspoonfuls.—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

SANO is barley flour dextrinized by means of heat; a food containing in 100 parts, according to Aufrecht, 12 of proteids, 65 of starch, 4 of soluble carbohydrates, 1½ of fat, and 14 of water.—Mfrs.: Sano Co., Berlin, Germ.

SANTALOL CARBONATE is described herein under *carbosant.*—Mfrs.: Greiner & Co., Glarus, Switzerland.

SANTALYL SALICYLATE.—See *santyl.*

SANTHEOSE is a French trade name for *theobromine.* A "santhéose phosphatée" (sodium phosphate 1, theobromine 2) and a "santhéose lithinée" (lithium carbonate 1, theobromine 2) are also marketed.

SANTYL *(santalyl salicylate),* $C_{22}H_{28}O_3$ occurs as a yellowish oil having a faint balsamic odor and taste, specific gravity about 1.07, soluble in about 10 parts of alcohol and insoluble in water. It is incompatible with alkalies and the usual incompatibles of the salicylates. It is used in the place of sandalwood oil, in acute gonorrhea, etc. Dose, 20 to 30 minims three or four times daily; also marketed in 8-minim capsules.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

SANUS is a brand of *solution formaldehyde.*

SAPROCRESOL is claimed to be identical with *lysol* and hence analogous to the official *compound solution of cresol.* —Mfr.: Apotheker Schumacher, Greetsiel, Germ.

SAPOCRESOLIN is a thick; brownish-black liquid analogous to *creolin.*—Mfr.: Schumacher, as above.

SAPOCRESOTIN is said to be similar to *creolin.*

SAPODERMIN is a superfatted soap containing mercury in the form of caseinate. It has a greenish-slate color and a faint and not unpleasant odor. It is used in parasitic and syphilitic skin diseases. Two strengths are fur-

nished, ⅕ and 1 per cent. of mercury respectively.—Mfrs.: Chem. Institute, Berlin W, Germ.; agts.: C. Bischoff & Co., Inc., New York.

SAPOKARBOLIN is saponified coal-tar creosote oils; a product analogous to if not identical with *creolin*.—Mfrs.: Ferromannin Chem. Co., New York.

SAPOLENTUM HYDRARGYRI is a superfatted potash soap containing 33⅓ per cent. of mercury. It is soluble in water, and hence is considered better than gray ointment in the inunction treatment of syphilis. It is marketed in capsules, the contents of one of which constitute the ordinary application.—Mfr.: Apotheker Görner, Berlin W, Germ.

SAPOPHENOL is an analogue of *solution cresol compound*, made by Wermund & Cie, Antwerp, Belgium.

SAPOZOL is a saponified cresol containing approximately 50 per cent. of cresol and thus probably identical with the official *liquor creosolis compositus*.—Mfr.: Ferromannin Chem. Co., New York.

SAPROSOL is another brand name for *solution cresol compound*.

SARATOGA OINTMENT contains boric acid, zinc oxide and eucalyptol as its therapeutically active ingredients, and is used in burns, inflammatory skin diseases, etc.—Mfrs.: G. F. Harvey Co., Saratoga Springs, N. Y.

SAUERIN is the name applied to tablets, the active constituent of which is a pure culture of the lactic acid bacillus. The article is used in producing sour milk according to the theory of Metschniffoff.—Mfrs.: Allen & Hanburys, London, Eng.

SAUROLO *(ammonium sulpho-caurolate)* an Italian preparation claimed to be analogous to ichthyol.—Mfrs.: Beché & Chiapetta, Milan, Italy.

SAVONAL is an ointment soap, a solid olive oil and potash soap spirit, that mixes clearly with water, glycerin, and alcohol, and readily takes up ichthyol, sulphur, resorcin, tar, and other dermic remedies. A savonal combined with 20 per cent. of oleum rusci, one containing 20 per cent. of lianthral, and one combined with 5 per cent. of sulphur ("thiosavonal") are on the market.—Mfrs.: Jünger & Gebhardt, Berlin S, Germ.

SCARLET RED *Medicinal (Bieberich scarlet R, fat ponceau R)* is used in 5 to 10 per cent. ointment on healthy ulcers and wounds free from edematous swelling. The pure, medicinal article occurs as a dark reddish-brown powder soluble in 15 parts of chloroform, readily soluble in oils, sparingly soluble in alcohol or ether, and insoluble in water.—(Nonproprietary.)

SCHISTINOL *(ammonium sulpho-schistinolate)*, a French preparation claimed to be analogous to ichthyol.—Mfrs.: Michelat & Souillard, Paris, France.

SCILLIPICRIN is a bitter principle of squill; a yellowish to reddish-yellow, hygroscopic, granular mass, soluble

in water and employed as a diuretic hypodermically. Dose, ⅓ to 1 grain once daily.—(Nonproprietary.)

SCILLITIN is a bitter principle of squill, occurring as a blackish-brown mass or powder administered as a diuretic in doses of ⅙ to ½ grain.—Nonproprietary.)

SCILLITOXIN *(scillain)* is a glucoside obtained from squill; a yellowish-brown powder, soluble in alcohol, and prescribed as a diuretic in doses of 1/60 to 1/20 grain several times daily, in pills. Maximum daily dose, ⅔ grain. —(Nonproprietary.)

SCOPARIN, $C_{20}H_{20}O_{10}$, is a bitter principle derived from scoparius, a yellowish, odorless, tasteless powder, soluble in alcohol, hot water and dilute alkalies. It is used in dropsy. Dose, per os, 5 to 10 grains; hypodermically, ½ to 1 grain, dissolved in water containing a trace of ammonia or in glycerin and water.—(Nonproprietary.)

SCOPOLAMINE, the alkaloid of scopolia atropoides and other varieties of scopolia, about which there formerly was considerable controversy regarding its relation to hyoscine, is now conceded to be identical chemically, physiologically and clinically, with *hyoscine*. The hydrobromide is official.

SCOPOMORPHINE is a solution of scopolamine hydrobromide and morphine sulphate prepared according to the formula of Dr. Korff and marketed in glass tubules of 1 c.c. It is employed as a general anesthetic subcutaneously. (See also euscopol.)—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

SCOROGENE (Clin) is a granular, almost tasteless substance representing "a special extract of boldo containing the cholagogue constitutent boldoglucin, but not the narcotic alkaloid boldine." It is used as a cholagogue and laxative. Dose, 2 to 6 teaspoonfuls per day; children half as much.—Marketed by E. Fougera & Co., New York.

SECACORNIN *(Ergotin-Roche; secornin)* is described as a sterile solution of the active principles of ergot in a menstruum consisting of distilled water, glycerin and alcohol (7.5 per cent.). 1 c.c. corresponds to 4 grams of ergot, and it is said to be standardized according to the method of Kehrer. It occurs as a dark-brown liquid. Its action and uses are the same as those of ergot. Dose, 8 to 15 minims. It may be given by intramuscular injection.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

SECAFORM is an ergot preparation made by a process similar to heat for preparing Winckel's digitalis. It is marketed as tablets, alone and in combination with styptic in.—Mfrs.: Krewel & Co., Cologne, Germ.; agts.: Lehn & Fink, New York.

SECALIN is a dialyzed preparation of ergot 1 part of which represents 3 parts of the drug, used mainly in uterine hemorrhage. Dose, 5 to 20 minims.—Mfrs.: La Zyma, St. Ludwig, Germ.

SECORNIN is the name by which *secacornin* was first known.

SECRETOGEN ELIXIR is said to be "prepared from gastric secretin obtained from the pyloric antrum and pancreatic secretin from the duodenum, combined with the zymogens of the peptic glands and ½ per cent. of hydrochloric acid." It is a claret-colored liquid of pleasant flavor. It is used in malnutrition due to insufficiency of ferments or their activators. Dose, 1 or 2 teaspoonfuls, before meals.—*Secretogen Tablets* are "prepared from prosecretin and succus entericus obtained from the epithileal cells of the duodenum, combined with the zymogens of the pancreas." They are used in indigestion, especially in amylaceous dyspepsia with fermentation and flatulence. Dose, 1 or 2 two hours after meals.—Mfrs.: G. W. Carnrick Co., New York.

SEDATIN or *sedatine* is a synonym of *antipyrin;* and of *valerydin.*

SEDATOLE is a cough sedative, "containing in each fluid dram 1/32 grain or heroin, with tolu, sanguinaria, squill, wild cherry, and balm of gilead buds."—Mfrs.: Sharp & Dohme, Baltimore, Md.

SELENIN is an antitubercular serum prepared by Prof. E. Klebs from cultures of diplococcus semilunaris, a germ present in lymphatic glands, skin, and organs affected with tuberculosis. Selenin *A* is obtained by precipitation with alcohol; selenin *B* by precipitation with sodium-bismuth iodide; and selenin *H* by precipitation with hydrogen peroxide. They are used locally and internally. Dose, 1 c.c.—Mfr.: Fr. G. Klebs, Berlin W, Germany.

SELENIO-EOSINE (Wassermann) has been used and found an efficacious remedy for cancer inoculated on mice, and doses of 4 to 15 milligrams three times daily have been tentatively suggested for trial in the treatment of cancerous affections in the human being.

SELENIUM CYANATE (as well as several other hitherto unknown selenium compounds) has been used internally in the treatment of carcinoma, and after cancer operations to prevent a recurrence, in the form of pills, solution or capsules. Dose, 1 to 4 milligrams three times daily. Further definite data are wanting.—Mfr.: Dr. F. von Oefele, New York; agt.: Chas. F. Klippert, New York.

SELLAGEN TABLETS are keratinized and sugar-coated tablets said to contain 0.1 gram each of extract of cascara sagrada, rhubarb, buckthorn and condurango. They are used as a laxative.—Mfr.: Alex. Müller, Bad Kreuznach, Germ.

SENNINE is a white, odorless powder, soluble in water, stated to be essentially a mixture of salicylic acid (2) and boric acid (3).—Mfrs.: Dios Chem. Co., St. Louis, Mo.

SEPTASGAN, at first called credargan, is a new brand *of colloidal silver.* Its properties and uses are the same as

those of collargol, which see.—Mfr.: H. Hammer, Dresden, Germ.

SEPTOFORMA is a veterinary disinfectant, deodorant and antiparasitic, consisting, according to the makers, essentially of "doxynaphthylmethane, $(C_{10}H_7O)_2CH_2$, dissolved in alcoholic linseed oil soap," perfumed with melissa and geranium oils. It occurs as a yellowish, transparent, oily liquid of alkaline reaction, and is soluble in water and alcohol, its solution foaming when shaken. Applied in 2 to 5 per cent. solutions. Marketed also as a 15 per cent. soap.—Mfr.: Septoforma Co., Cologne, Germ.

SERUM, BICHLORIDE (Chéron), is a solution of mercuric chloride 1, sodium chloride 4, carbolic acid 4, and sterilized distilled water 400 parts. It is used subcutaneously in syphilis, 20 c.c. a week.

SERUM, BLONDEL'S, also known as *lactoserum*, is obtained by coagulating milk with acid, neutralizing the filtrate with soda and passing it through a porcelain filter, and impregnating with carbonic acid. It is used subcutaneously in diseases dependent upon arterial sclerosis. Dose, 10 c.c. twice daily.

SERUM, CUGUILLERE'S, is composed of allyl sulphide, tincture of myrrh and Hayem's serum. It is used by injection in tuberculosis of the joints. Dose, 2½ to 15 c.c.

SERUMS or *antitoxins* are modern remdeial agents based on the proposition that each toxin causative of a certain disease gives rise to a distinct antitoxin that is curative of the affection. Those most in vogue are the antidiphtheritic (described under antitoxin, diphtheria), antistreptococcic or streptolytic, antituberculous, antitetanic, antivenomous, and thyroid. Besides these, however, *anticarbuncle*, *anticholera*, *antidiabetic*, *antidysenteric*, *antifatigue*, *antipneumonic* and *antistaphylococcic* serums are made. *Antistreptococcic* or *streptolytic* serum is used in scarlet fever, erysipelas, puerperal fever, and other diseases caused by infection with streptococci; dose, 10 to 40 c.c. hypodermically. *Antituberculosis* serum was first recommended by Prof. Maragliano; dose, 1 to 4 c.c. every other day to once weekly. *Antitetanic* serum is marketed in liquid and dry forms, the latter being several times as powerful as the former; the dose of the liquid as made by American manufacturers is 10 to 30 c.c. every 12 to 24 hours. *Antivenomous* serum, introduced by Calmette, has been described under the name *antivenin*. *Thyroid* serum was referred to here under *antithyroidin* (and *basedowsan*). *Yersin's* serum is used in bubonic plague, in mild cases hypodermically, in severe cases also intravenously—150 to 300 c.c. together at the outset.

SERUMS, ARTIFICIAL BLOOD, are various mixtures of salts used subcutaneously in arterial sclerosis and affections dependent upon it (hemiplegia, paraplegia, etc.), as well as in collapse from profuse bleeding, etc. Bordet's serum consists of sodium chloride 1, sodium sulphate 2,

sodium phosphate 3, carbolic acid ½ and sterilized distilled water 96½ parts. *Cantani's* serum consists of sodium chloride 2, sodium carbonate 1, and water 500 parts. *Chéron's serum No 1* consists of sodium chloride 3, sodium sulphate 8, carbolic acid 1, and hot water 100 parts. *Chéron's serum No. 2* is the same as the former but without carbolic acid. *Crocq's* serum consists of sodium phosphate 1 and water 50 parts. *Dujardin-Beaumetz's* is made up of sodium carbonate 1, potassium sulphate 1, sodium lactate 1, solution phosphate 0.5, sodium chloride 3.1, and water 1000 parts. *Gaube's antiarthritic* serum consists of potassium chloride 154, calcium chloride 60, sodium chloride 22, magnesium chloride 15, calcium iodide 5, casein (dry) 80, and cherry-laurel water 200 parts. (Dose, 1 to 3 c.c. one to three times weekly). *Hayem's serum No. 1* consists of sodium chloride 1, sodium sulphate 2, and water 200 parts. *Hayem's serum No. 2* is composed of sodium chloride 0.75 and water 100 parts. *Herard's* serum consists of sodium chloride 5, sodium phosphate 12.5, sodium carbonate 45, potassium chloride 2.5, distilled water 10,000. *Howell's* serum consists of sodium chloride, calcium chloride, potassium chloride and sodium bicarbonate dissolved in water. *Huchard's* serum consists of sodium chloride 2, sodium phosphate 4, sodium sulphate 1, and water 40 parts. *Huchard's modified* or *No. 2* serum is made up of sodium chloride 3, sodium phosphate 10, sodium sulphate 2.5, carbolic acid 1.5, and water 100 parts. *Kronecker* and *Lichtenstein's* serum is composed of sodium chloride 7.5, sodium carbonate 0.1, and water 1000 parts. *Latta's* serum consists of sodium chloride 3.5, sodium carbonate 1.7, and water 3400 parts. *Leclerq's* serum is made up of sodium chloride 4, sodium phosphate 0.5, sodium sulphate 0.5, and hot water 100 parts. *Locke's* serum consists of sodium chloride 6, calcium chloride 0.26, potassium chloride 0.4, calcium carbonate 0.03, distilled water 1000. *Luton's* serum consists of sodium chloride 4, sodium pohsphate 4, sodium sulphate 10, and boiling water 100 parts. *Mathieu's* serum is composed of sodium chloride 1, sodium phosphate 4, sodium sulphate 6, and boiling water 100 parts. *Netter's* serum is said to contain sodium chloride, Calcium chloride, potassium chloride, and sodium bicarbonate, with water. *Quinton's* serum is obtained by diluting sea water to a little below the specific gravity of the blood. *Renzi's* serum consists of iodine 1, potassium iodide 3, sodium chloride 6, and water 1000 parts. *Ringer's* serum is composed of sodium chloride 6, calcium chloride 0.1, potassium chloride 0.075, calcium carbonate 0.1, distilled water 1000. *Sapelier's* serum is composed of sodium chloride 6, sodium phosphate 0.45, sodium carbonate 3.1, potassium chloride 0.5, potassium sulphate 0.35, and boiling water 100 parts. Schiess's serum consists of sodium chloride 7.5, sodium carbonate 5, and water 100 parts. *Schwarz's* serum is made up of sodium chloride 6, and

water 100 parts, with 2 drops of liquor sodæ to each 100 grams. *Sydmann's* serum is composed of sodium chloride 6, sodium carbonate 1, and water 1000 parts. *Trunecek's* serum consists of sodium phosphate 0.15, sodium carbonate 0.21, potassium sulphate 0.4, and water 95 parts.

SEVETOL *(emulsion sevum compound)* is a "permanent, palatable emulsion of mixed fats, with proteids and carbohydrates"—evidently patterned after Russell's emulsion of mixed fats. The combined fats, consisting of butter fat, beef fat, olive oil, lard and peanut oil, constitute one-third of the whole mixture. It is intended as a nutrient in pulmonary tuberculosis and other conditions of malnutrition. Dose, one dessertspoonful to two tablespoonfuls and more. Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

SEXTONOL TABLETS consist of the six "tonols" (glycerinophosphates) of lime (2 grains), soda (2 grains), iron (½ grain), manganese (¼ grain), quinine (¼ grain), and strychnine (1/200 grain). These are employed as blood, nerve, and tissue nutrients.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

SICCOLES ("dry oils") are dry triturations of non-palatable drugs, such as castor oil, extract of male fern, oil of sandalwood, creosote, etc., representing 50 per cent. of the oil.—Mfrs.: "Sicco," Berlin C, Germany.

SICUTAN is a brownish-yellow liquid containing about 16 per cent. of sulphur in organic combination. It is soluble in alcohol or fatty oils; insoluble in water or glycerin. It is used in rheumatism, gout and inflammatory skin diseases, like ichthyol. Marketed in liquid form, pearls and ointment (2.5 per cent.).—Mfrs.: Valentiner & Schwarz, Leipsic-Plagwitz, Germ.; agts.: C. Bischoff & Co., Inc., New York.

SIDONAL is *piperazin quinate* (chinate), $C_{18}H_{34}N_2O_{12}$, and occurs as a white powder of pleasant, slightly acidulous taste; freely soluble in water. It is prescribed in gout, renal calculi, and other manifestations of uric acid diathesis. Dose, 15 to 30 grains five or six times a day.—Mfrs.: Vereingte Chem. Werke, Charlottenburg, Germ.; agts.: V. Koechl & Co., New York.

SIDONAL, NEW, is a cheaper variety of sidonal—chemically, *quinic anhydride*, a white, odorless, tasteless powder, soluble in water, alcohol, ether or chloroform. Dose, etc., as above.

SILBEROL is a trade name for *silver sulphocarbolate*, which see.

SILVER ACETATE, $AgC_2H_3O_2$, occurs as white crystals, soluble in about 100 parts of water. It has been recommended by Dr. P. Zweifel as a succedaneum for silver nitrate especially as a prophylactic of ophthalmia neonatorum. It is used in 1 per cent. solution, which should be *kept protected* against light.—(Nonproprietary.)

SILVER-ATOXYL is *silver aminophenylarsinate, containing 33 per* cent. of silver and 23 per cent. of arsenic.

It is administered as a 10 per cent. olive oil suspension hypodermically in the treatment of septicemia.—Mfrs.: Meister, Lucius & Brüning, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

SILVER-CASEIN.—See *argonin*.

SILVER CITRATE *(Credé's antiseptic*, known abroad and formerly also on this market as *itrol)*, $Ag_3C_6H_5O_7$, occurs as a white, odorless, heavy powder requiring 3800 parts of water for solution. It is used as an astringent bactericide; pure or in 1 to 2 per cent. ointments on wounds, ulcers, etc., and in 1:4000 to 1:8000 aqueous solutions in gonorrhea, stomatitis, etc. Its solutions should be prepared in small quantities at a time and kept in dark-amber bottles.—(Nonproprietary.)

SILVER EOSOLATE is defined as the neutral salt of trisulpho-acetyl-creosote, containing 50 per cent. of silver and 20 per cent. of creosote, and soluble in water and glycerin. It is used as an astringent antiseptic, on wounds, in gonorrhea, etc., in 1 to 5 per cent. solutions, in ointments, or pure. To make solutions, rub up the salt with a little glycerin and water to a paste, then add the rest of the water and heat gently.—Mfr.: Berliner Capsules-Fabrik, Berlin, Germ.

SILVER FLUORIDE (known in Italy as *tachiol*), AgFl, occurs as very deliquescent crystals rapidly changing on exposure to light and air to a yellow color and finally to a black crystalline mass. It is freely soluble in water, and said to be the most powerful antiseptic among the silver salts. Applied in 1:1000 to 1:5000 solutions chiefly; sometimes in 1 per cent. solutions. Its stains on linen may be removed by washing with weak solutions of potassium cyanide, or with a solution of corrosive sublimate 1, water 2000, salt 25.—(Nonproprietary.)

SILVER-HEXAMETHYLENAMINE.—See *argentiform*.

SILVER ICHTHYOLATE.—See *ichthargan*.

SILVER IODATE, $AgIO_3$, is a white powder almost insoluble in the usual solvents, and used chiefly in chronic diarrhea. Dose, 1/12 to ⅛ grain, as pills, several times daily. There is probably the same risk of permanent discoloration of the skin from internal use of this as from silver nitrate.—(Nonproprietary.)

SILVER IODIDE EMULSION.—See *silvodide*.

SILVER LACTATE, formerly known also as *actol*, $AgC_3H_5O_3+H_2O$, forms a white, odorless and nearly tasteless, crystalline powder, soluble in about 15 parts of water. It was introduced by Credé as an antiseptic for subcutaneous injection in certain infectious diseases (anthrax, erysipelas, etc.) and for disinfecting wounds, abscess-cavities, etc. Employed in 1:500 to 1:100 solutions. Dose, by injection, ¾ to 3 grains a day, singly or divided. The *solutions should* be prepared fresh with boiled, distilled *water, and* kept in black-glass bottles.—*(Nonproprietary.)*

SILVER METHYLENENUCLEINATE.—See *sophol.*

SILVER NUCLEINATE is described under *nargol.*

SILVER PICRATE is described here under its trade name, *picratol.*

SILVER-PROTALBIN is better known as *largin*, which see.

SILVER PROTEINATE.—See *novargan.*

SILVER-QUINASEPTOLATE.—See *argentol.*

SILVER SULPHOCARBOLATE *(silberol; silver phenolsulphonate* or *sulphophenate)*, $C_6H_4.OHSO_3Ag$, occurs as a white powder, soluble in water and alcohol. It is used as an antiseptic and astringent in ophthalmology and surgery, mostly in 1:500 to 1:100 solutions, which are sensitive to light.

SILVER THIOHYDROCARBUROSULPHONATE is a synonym of *ichthargan.*

SILVER TRINITROPHENOLATE.—See *picratol.*

SILVER-VITELLIN is described under the title *argyrol.*

SILVODIDE is a trade name for the emulsion or *milk of silver iodide* as evolved by M. I. Wilbert, formerly of Philadelphia but now of Washington. To make 100 c.c. it requires 2.2 Gms. each of silver nitrate and potassium iodide. It is generally used pure, in the same diseases as silver nitrate. It does not stain the skin or clothing.—Mfrs.: Silvodide Chem. Co., Philadelphia, Pa.

SIROLIN is a 7 per cent. syrup of thiocol, used in phthisis and chronic bronchitis. Dose, 1 to 4 teaspoonfuls, after meals.—Mfrs.: Sirolin Co., New York.

SIRSOL (formerly *sirosol*) is a syrup of potassium guaiacolsulphonate similar to if not identical with *sirolin*, made by Reichold & Co., St. Ludwig, Germ.

SITOGEN appears to be an extract of yeast. It is intended to supplant extract of beef as an addition to soups, etc.—Mfrs.: Sitogen Extract Co., Löbau, Germany.

SIX-O-SIX *("606")* is described under its present trade name *salvarsan.*

SOAMIN is the trade name applied to *sodium aminophenylarsonate*, $C_6H_4(NH_2)AsO(OH)(ONa)+5H_2O$. It contains 22.8 per cent. of arsenic and is soluble in about 5 parts of water, "yielding a neutral solution which can be sterilized by boiling for five minutes without undergoing decomposition. . . . It has less than 1/40 the toxicity or arsenous acid." It is employed as an antiluetic (generally by intramuscular injection) as well as an alterative (per os) in skin diseases. Dose, internal, ¼ to 1 grain after meals; intramuscular, 5 to 10 grains every second day.—Mfrs.: Burroughs Wellcome & Co., London (Eng.) and New York. [Note: Experience has shown that great *caution* is necessary in the administration of the arylarsonates, such as soamin, orsudan, etc., as in some cases toxic *symptoms* have arisen.]

SODACOL is a proprietary term for sodium guaiacolsul

phonate, which forms one of the ingredients of a mixture known as "triacol."—Mfrs.: Alpers Pharmacy, New York.

SODIFORMASAL is the sodium salt of formasal (methylenedisalicylic acid), hence *sodium methylenedisalicylate*, of the formula $C_{13}H_{10}O_2(CO.ONa)_2$. It occurs as an almost white powder, readily soluble in water, soluble also in alcohol, but insoluble in ether. It is used in migraine, neuralgia, rheumatism, etc. Dose, 5 to 20 grains. Incompatible with ferric salts. See caution under *formaldehyde*. —Mfrs.: Organic Chem. Co., Fort Washington, Pa.

SODIUM ACETYL-SALICYLATE.—See under *hydropyrine*.

SODIUM AMINOPHENYLARSONATE.—See *atoxyl* and *soamin*.

SODIUM ANHYDROMETHYLENECITRATE is described under *citarin*.

SODIUM ANILINE-ARSONATE is a synonym of *sodium arsanilate*, a chemical better known by trade names *atoxyl* and *soamin*.

SODIUM ANTIPYRIN-METHANESULPHONATE.—See *melubrin*.

SODIUM ARSANILATE *(sodium aniline-arsonate, sodium aminophenyl-arsonate)* is better known by the trade names *atoxyl* and *soamin*, which see.

SODIUM BISULPHATE *(acid sodium sulphate)*, $NaHSO_4 + H_2O$, is no new chemical, but has only recently been brought to the fore as a remedy in typhoid fever by Dr. H. G. McCormick, of Williamsport, Pa. It occurs as colorless crystals soluble in water. Dose, 15 grains in 4 ounces of water several times daily.—(Nonproprietary.)

SODIUM BRENZCATECHIN-MONO-ACETATE is the chemical designation for *guajacetin*, which see.

SODIUM BROMOVALERATE is referred to under *valerobromine*.

SODIUM CACODYLATE or *dimethylarsenate*, $(CH_3)_2AsO_2Na + 3H_2O$, occurs as a white, somewhat hygroscopic powder or colorless crystals, having a garlicky odor and containing approximately 35 per cent. of arsenic (equivalent to 47 per cent. of arsenous acid). It is soluble in about 1 part of water or 30 parts of alcohol, and sparingly soluble in ether or chloroform; its solutions may be sterilized by boiling without causing decomposition. It is used as a succedaneum for arsenous acid and alkali salts of arsenic, and has latterly come to the fore as an antisyphilitic analogous to salvarsan. Dose, by mouth, ½ to 2 grains; hypodermically, in syphilis, 6 to 10 grains. It imparts a garlicky odor to the breath and perspiration.—(Nonproprietary.)

SODIUM CASEINATE.—See *nutrose*.

SODIUM CINNAMATE *(sodium phenylacrylate; hetol)*, $C_6H_5CH:CH.CO_2Na$, is a white crystalline powder soluble in about 20 parts of water. Used by intravenous injection in pulmonary tuberculosis. Dose, 1/60 grain, gradually

increased to ⅓ grain, in 1 to 5 per cent. solution three times a week.—(Nonproprietary.)

SODIUM DIETHYLBARBITURATE, $Na(C_8H_{11}O_3N_2)$, is the mono-sodium salt of diethylbarbituric acid (diethylmalonyl-urea; "veronal"). It is marketed under various trade names, such as: *medinal; veronal-sodium;* etc. It occurs as a white, crystalline powder soluble in about 5 parts of cold water, the solution having a bitter-alkaline taste. The salt contains about 80 per cent. of the therapeutically active acid. It is a hypnotic, like veronal, but, owing to its ready solubility, it is claimed to act more promptly and to be eligible for use also hypodermically and by rectal injection. Dose, 5 to 15 grains in a glass of sweetened water or wine. For makers of various brands, see under *medinal* and *veronal-sodium.*

SODIUM DIIODOSALICYLATE, $C_6H_2(OH)I_2.COONa+2\frac{1}{2}H_2O$, occurs as colorless leaflets or needles soluble in 50 parts of water. It is used as an analgesic and antiseptic. Dose, 3 to 10 grains one to four times daily. Applied externally like iodoform, chiefly in parasitic skin diseases.—(Nonproprietary.)

SODIUM FERRIALBUMINATE.—See *ferratin.*

SODIUM FLUORBENZOATE *(sodium para-fluorbenzoate)*, $C_6H_4FlCOONa$, occurs as a white powder soluble in water. It is used as an internal antiseptic chiefly in tuberculous processes. Dose, 8 grains three times daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

SODIUM FORMATE, $NaCHO_2+H_2O$, occurs as a white, water-soluble powder, and is employed externally in surgical tuberculosis (½ to 2 grains in solution once weekly), and internally in pneumonia (1 to 3 grains ever 2 hours in infusion of adonis vernalis). See caution under *formaldehyde.*—(Nonproprietary.)

SODIUM GLYCERINOPHOSPHATE, $Na_2C_3H_7PO_6+7H_2O$, is marketed as 75 per cent. solution only, owing to its extreme deliquescence. It is as a nerve nutrient wherever phosphorus is indicated. Dose, by mouth, 3 to 10 grains, three times a day, as syrup or solution; hypodermically, 3 or 4 grains once daily. Its solutions and syrups do not keep well, and should hence be prepared in small quantities at a time. For hypodermic injections the water used should be boiled, distilled water.—(Nonproprietary.)

SODIUM GLYCOCHOLATE, $NaC_{26}H_{42}NO_6$, is a constituent of bile, occurring, in the pure state as a yellowish, very bitter powder soluble in water or alcohol. It has recently been recommended as an efficient cholagogue, particularly in hepatic colic and cholelithiasis in general. Dose, 5 to 15 grains three times daily, in capsules with a few grains of magnesia to prevent nausea.—(Nonproprietary.)

SODIUM IODATE, $NaIO_3$, is a white powder, soluble in water. It is used in the main as a substitute for potas-

sium iodide internally, and for iodoform externally. Dose, 5 grains three times a day, in pills; subcutaneously (in muscular rheumatism), 1 to 1½ grains. Applied externally in 1½ to 10 per cent. solutions or ointments, or as a pencil (in corneal ulcers, trachoma, etc.).—(Nonproprietary.)

SODIUM META-VANADATE.—See *sodium vanadate.*

SODIUM METHYLACETYLAMINOPHENYLARSONATE.—See *orsudan.*

SODIUM METHYL-ARSENATE.—See *disodium methylarsenate.*

SODIUM OLEATE, $NaC_{18}H_{33}O_2$, is a white powder, soluble in about 10 parts of water, and 20 parts of alcohol. It is antacid and mildly laxative, and has been claimed to be particularly useful in diseases of the biliary tract. Dose, 4 to 15 grains, in pills.—(Nonproprietary.)

SODIUM OLEATE, ACID, represents about 70 per cent. of sodium oleate in an excess of oleic acid. It occurs as a yellow, soft unctuous mass, and is employed as a cholagogue. Dose, 5 to 20 grains, in capsules.—(Nonproprietary.)

SODIUM PERBORATE, $NaBO_3+4H_2O$, occurs as a white, granular odorless, water-soluble salt, decomposed by water into hydrogen dioxide and sodium metaborate, producing an alkaline solution. It should contain not less than 9 per cent. of available oxygen. It is used as an antiseptic and deodorant on wounds, ulcers, etc., in the place of solution of hydrogen dioxide, and is applied as a dusting-powder or in solution (2 per cent. usually). It forms the basis of various oxygen-generating tooth powders and tooth pastes. —(Nonproprietary.)

SODIUM PEROXIDE is the sodium salt of hydrogen peroxide containing about 90 per cent. of Na_2O_2. It occurs in the form of a white or yellowish, amorphous powder, soluble in water with evolution of heat, and formation of a solution of hydrogen peroxide from which oxygen is liberated by the heat of the reaction. Medicinally it has been used in acne, in the form of a paste prepared with liquid paraffin, or as a soap to remove comedones. It has also been suggested as an air-purifier, based on the theory that the moisture of the air would liberate oxygen and the alkali simultaneously formed would absorb carbon dioxide. —(Nonproprietary.)

SODIUM PHENYLDIMETHYLPYRAZOLON AMIDOMETHANESULPHONATE.—See *melubrin.*

SODIUM PYROCATECHIN-MONO-ACETATE is *guajacetin*, which see.

SODIUM SILICOFLUORIDE or FLUORSILICATE, also known as *salufer*, $NaSiF_6$, occurs as a white, granular powder, slightly soluble in water. It is prescribed as an antiseptic and astringent, for wounds, cystitis, gonorrhea, *aphthæ, etc., in 1,1000* solution mostly.—(Nonproprietary.)

SODIUM SOZOIDOLATE.—See under sozoiodole.

SODIUM SULPHANILATE *(sodium anilinosulphate)*, $C_6H_4NH_2.SO_2ONa+2H_2O$, occurs as white glistening leaflets, soluble in water. It is employed in acute catarrhs and iodism; it is believed to convert the nitrites present in the nasal secretion and saliva into indifferent diazo substances. Dose, 15 grains, in water, six times daily.—(Nonproprietary.)

SODIUM SULPHOSALICYLATE, $NaC_7H_5O_3SO_2$, forms white crystals or powder, soluble in water and almost insoluble in alcohol or ether. It is used as an antirheumatic, antiseptic and antipyretic, like sodium salicylate, in rheumatism, neuralgia, chorea, pleurisy, etc. Dose, 10 to 30 grains.

SODIUM TELLURATE, $Na_2TeO_4+5H_2O$, occurs as a white powder soluble in water. It is prescribed chiefly to arrest phthisical night-sweats, but also in typhoid fever. Dose, ¼ to ¾ grain in elixir.—(Nonproprietary.)

SODIUM TETRABORATE NEUTRAL is the designation applied to a fused mixture of equal parts of borax and boric acid, occurring as transparent glass-llike masses freely soluble in water, and recommended as a non-irritant, powerful antiseptic in diseases of the nose, ear, and eye. Applied in keratitis and conjunctivitis in substance finely powdered; in ear and nose affections, in saturated aqueous solution (about 16 per cent.).—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

SODIUM THYMOL-BENZOATE is the designation applied to an analogue of *pyrenol*. According to Dr. Zernik, it is essentially a mixture of 1 part of benzoic acid and 2 parts of sodium salicylate, containing 0.1 per cent. of thymol. It is used as an antipyretic and anodyne in doses of 8 to 30 grains.—Mfrs.: Hoeckert & Michalowsky, Berlin SW, Germany.

SODIUM VANADATE *(sodium meta-vanadate)*, $NaVO_3$, occurs as a greenish-white, almost tasteless powder soluble in hot water. It is used as a nerve tonic and alterative in affections caused by sluggish metabolism, diabetes, phthisis, etc. Dose, 1/60 grain in water, before meals, for two or three days of the week.—(Nonproprietary.)

SODIUM AND CAFFEINE SULPHONATE.—See *symphorol N*.

SODOPHTHALYL is a water-soluble derivative of phenolphthalein, *disodoquinone phenolphthaleinate*, and, like it, acts as a purgative. It is active also when injected subcutaneously, to which method of administration it is adapted.

SOLANINE, $C_{45}H_{73}NO_{15}$, is an alkaloid obtained from potato shoots and from solanum dulcamara. It is used as an analgesic, antineuralgic and nerve sedative, usually as the hydrochloride, which is water-soluble. Dose, ¼ to 1 *grain*.—(Proprietary.)

SOLITUSSIN.—See under diastussin.

SOLUTION BLANCARD consists of exalgin 2.4 parts,

diluted alcohol 20 parts, distilled water 60 parts and syrup 125 parts.

SOLUTION OF SODIUM CHLOROBROMIDE *(Mitchell's fluid)*, latterly recommended by Dr. H. W. Mitchell, of New York, for ulcerative processes including pulmonary tuberculosis, is prepared by adding to a suitable quantity of water, 3 per cent. of sodium chloride, 0.1 per cent. of bromine, and 0.5 per cent. of pure hydrochloric acid, and subjecting the mixture to the action of an electric current until chemical reaction has been completed. It is a pale-amber liquid, with a strong odor of chlorine, a slightly acid taste, and a specific gravity of 1.022. It should be kept in amber-colored bottles, in a cool place, and tightly corked. It is used pure on ulcers and other wounds; internally (in phthisis, etc.) in doses of 1 to 1 fluid ounces four times daily, on an empty stomach.

SOLUTOL is "an alkaline solution of cresols in cresol-alkali, and containing 60 per cent. of cresol." A *crude* and a *pure* solutol are marketed. The former has a tarry color, and is used for coarse disinfectant purposes. The pure solutol is used as a medicinal and household disinfectant. —Mfrs.: Heyden Chem. Works, Radebeul ,Germ.) and New York.

SOLVEOL is a neutral solution of cresols with sodium cresotinate, containing about 25 per cent. of free cresol. It mixes clearly with water, and its tarry odor is not perceptible in dilutions. It is employed as a surgical disinfectant, like carbolic acid.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

SOMATOSE represents deutero- and heteroalbumoses derived from meat albumin; a light-yellow, granular, odorless, almost tasteless powder, soluble in water and all ordinary fluids. It is prescribed as a nutrient and reconstructive for the sick and infants. Dose, 150 to 240 grains per day; children up to 100 grains daily. The powder is poured into about half a glassful of hot water and let stand undisturbed until solution is effected. It is then added, if desired, to broth, soup, etc.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

SOMATOSE, IRON.—See *ferro-somatose.*

SOMATOSE, LIQUID, is marketed as sweet and spiced, the former having a mildly aromatic, sweet taste, the latter a spicy taste reminding of soup greens. Dose, a tablespoonful three times a day.

SOMATOSE, MILK, is described under *lacto-somatose.*

SOMNOFORM is a local anesthetic used in dentistry. It is said to be a mixture of ethyl chloride (60), methyl chloride (35), and ethyl bromide (5). Marketed by De Trey & Sons, Philadelhpia, Pa.

SOMNIGEN is "a dialyzed solution of the hydrobromides of the opium alkaloids in sherry wine, of the same strength as the B. P. tincture of opium, but free from nauseous odor

and taste." Dose, 5 to 40 minims.—Mfrs.: C. J. Hewlett & Son, London, Eng.

SOMNOS is described as an "elixir of trichlorethidine propenyl ether, a definite chemical compound of chloral and glycerin, containing 5.5 per cent. of the active ingredient." It is offered as a hypnotic and nerve sedative. Dose, 1 to 2 tablespoonfuls.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

SOPHOL is a compound of formaldehyde, nuclein and silver, *silver methylenenucleinate*. It occurs as a light, dark-yellowish powder containing 20 per cent. of silver, having a metallic taste and readily soluble in water with alkaline reaction. It is offered as an astringent bactericide, similar in action to protargol, argyrol, etc. It is used in 3 per cent. to 5 per cent. solutions, mainly in eye disease. Its solutions should be made without cold water and be dispensed in black or dark-amber bottles. They are best prepared by dusting the sophol upon the surface of the requisite quantity of water and allowing the liquid to stand undisturbed until the drug has dissolved; or the sophol may be rubbed up into a paste in a mortar with a little water and the rest of the water gradually added.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

SOSON is described as pure, dry muscle albumin. It occurs as a grayish-white, fine, odorless and almost tasteless powder, insoluble in water. It is used as a nutrient. Dose, a teaspoonful, with soups, etc.—Mfrs.: Eiweiss-und Fleischextrakt Co., Altona, Germ.

SOZAL is the trade name applied to *alumnium paraphenolsulphonate* or *sulphocarbolate*, $(C_6H_4.OH.SO_3)_3Al_2$. The drug occurs as brownish, crystalline granules, readily soluble in water, glycerin or alcohol. It is used in 1 per cent. solution on suppurating ulcers, in cystitis, etc.—Mfr.: C. Haaf, Berne, Switzerland.

SOZOIODOLE is the generic name adopted for salts of diiodo-para-phenolsulphonic (sozoiodolic acid), $C_6H_2I_2$-$OH.SO_3H+1\frac{1}{2}H_2O$. The latter occurs as white, crystals, readily soluble in water, glycerin, and alcohol, and employed in 2 to 3 per cent. solution on wounds. *Mercury* sozoiodole occurs as a very fine, orange-yellow powder, soluble in sodium chloride solution, but insoluble in water or alcohol. It is employed in 10 per cent. ointment in parasitic and syphilitic skin diseases, and in 1 per cent. dusting-powder in intertrigo, leg ulcers, etc. Dose, ½ to 1½ grains. *Potassium* sozoiodole occurs as a white, odorless powder, which is soluble in 50 parts of water; it contains 52.8 per cent. of iodine. It is used externally in scabies, impetigo and other skin diseases, in gonorrhea, rhinitis, diphtheria, etc. Applied in 5 to 10 per cent. ointments or dusting-powders, or in 25 to 50 per cent. insufflation powder. *Sodium* sozoiodole occurs as colorless, odorless needles, soluble in 15 parts of water, 20 of glycerin

and in alcohol. It is used internally as an antiseptic and antidiabetic and externally in syphilitic lesions, gonorrhea, rhinitis, whooping cough, etc. Dose, 2 to 10 grains. Externally in 2 to 8 per cent. solutions, 10 to 25 per cent. powder or ointment, etc. *Zinc* sozoiodole occurs as colorless, odorless needles, soluble in 25 parts of water, freely soluble in alcohol or glycerin. It is used largely in nasal catarrh (5 to 10 per cent. powder or 3 per cent. solution), in gonorrhea (½ to 1 per cent. solution), and in skin diseases (5 to 10 per cent. ointment). *Aluminium, ammonium, barium, lithium, magnesium* and *lead* sozoiodoles are also marketed, but are not in vogue with the medical profession.—Mfr.: H. Trommsdorf, Aix-la-Chapelle, Germ.; agts.: Mallinckrodt Chem. Works, St. Louis, Mo.

SPECIFIC MEDICINES, as used by eclectic physicians, are "a class of preparations introduced nearly half a century ago, each drug being studied in accordance with its specific qualities. They are not specific cures, but rather agents to be used in a specific manner. They differ from the fluidextracts and tinctures in that their origin is frequently the green plant, while again it is partly dried, and again wholly dried; and the pharmacopœial standard is not uniformly recognized. For example, specific medicine hydrastis is practically devoid of the white alkaloid hydrastine, which alone is recognized by the U. S. P. as the standard of excellence; specific medicine nux vomica contains but one-fourth the amount of strychnine required by the pharmacopœia, in comparison with the brucine of nux vomica, etc."—Mfrs.: Lloyd Bros., Cincinnati, O.

SPERMINE POEHL is the hydrochloride of a base existing in the testicles and other glands of the animal conomy, $C_6H_{14}N_2$. It is said to act upon the entire nervous system uniformly, as a tonic and stimulant, it is used in neurasthenia, locomotor ataxia, diabetes, phthisis, cachexias, etc. Marketed in 2 per cent. solution for subcutaneous use, dose 15 minims daily or every other day; and as *elixir* ("essence"), a 4 per cent. aromatized, alcoholic solution of the double salt spermine-sodium chloride; dose 10 to 30 drops in alkaline water in the morning.—Mfrs.: Prof. A. v. Poehl & Sons, St. Petersburg, Russia; agts.: Lehn & Fink, New York.

SPERMINE MARPMANN is described as a dilute-alcoholic solution of the soluble substances of fresh bullocks' testicles, containing 2 per cent. of the base $C_6H_{14}N_2$ (spermine) together with albumins (absent in spermine Poehl). It is used in marasmus, convalescence from in-fectious diseases, etc., like Poehl's spermine, but given by the mouth. Dose, 5 to 20 drops two or three times daily.—Mfrs.: Institute Marpmann, Leipsic, Germ.

SPERMINOL is a 2¼ per cent. alcoholic solution of spermine, intended for internal use; *sperminol subcutaneous* is a 2¼ per cent. solution in another menstruum than *alcohol*. Dose by mouth, 15 to 30 minims; subcutaneously,

half as much, once daily or every second day.—Mfrs.: Leopold Stolkind & Co., Berlin O, Germ.

SPHYMOGENIN is a brand name for the active principle of the suprarenal capsule as marketed by Heyden Chem. Works, Radebeul (Germ.) and New York. See *epinephrine.*

SPIRACIN is the name applied to *methyl-carbonylsalicylic acid.* The substance is insoluble in water and is intneded as a substitute for salicylic acid and the salicylates. Dose, 10 to 20 grains.

SPIROFORM is *acetyl-salol; salol* (phenyl salicylate) in which one hydrogen atom has been replaced by an acetyl molecule, as shown in its structural formula: $C_6H_4.O.CH_3$-$CO.COOC_6H_5$, the formula for salol being $C_6H_4OH.COOC_6H_5$. It occurs as a white, crystalline powder, of a very faint aromatic odor, and practically tasteless. It is insoluble in water, but readily soluble in alcohol. Like salol, it passes the stomach almost wholly unaltered, but is decomposed in the intestines into acetic acid, phenol and salicylic acid. Spiroform is used in rheumatism, influenza, sciatica, etc. Dose, 7½ to 15 grains, three to five times daily. —Mfrs.: Ernst Bischoff & Co., New York.

SPIROSAL is a trade name for *monoglycol salicylate* or *monoglycolic ester of salicylic acid,* $C_9H_{10}O_4$. The product occurs as a nearly colorless and almost odorless oily liquid, freely soluble in alcohol, ether or chloroform, and soluble in about 110 parts of water and 8 parts of olive oil. It is readily miscible with an equal part of petrolatum or fat. It is used externally in rheumatic affections, etc. It is applied undiluted or mixed with 2 to 3 parts of alcohol, or in a mixture with 8 parts of olive oil or in 50 per cent. ointment.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

SPLEEN SUBSTANCE DESICCATED is prepared from the fresh spleen of the calf, 1 grain representing approximately 5 grains of the raw material. It has been used empirically in tuberculosis, chlorosis, and myxedema. Dose, 5 to 20 grains.—Mfrs.: Armour & Co., Chicago, Ill.

SPURMAX is an undescribed ingredient of a formula for a face lotion published in the lay press. According to analyses made in the chemical laboratory of the American Medical Association, it consists essentially of crystallized magnesium sulphate, with traces of perfume and coloring matter.—Mfrs.: H. S. Peterson & Co., Chicago, Ill.

STAPHISAGRINE, $C_{32}H_{52}NO_5$, is an alkaloid of delphinium staphisagria. It occurs as an amorphous, bitter powder, soluble in alcohol and almost insoluble in water. It is less toxic than delphinine, and is without action on the heart. It is used as an antidote to strophanthin. Dose, 1/30 to 1/15 grain.—(Nonproprietary.)

STAPHYLO BACTERIN.—See under *bacterins.*

STARCH ANIMAL.—See *glycogen.*

STARCH, IODIéED (iodamyl), is a bluish-black powder,

soluble in alcohol, and containing 2 per cent. of iodine. It is used internally in diarrhea, typhoid fever, etc., and externally in ointment form as a substitute for iodine tincture. Dose, 3 to 10 grains.—(Nonproprietary.)

STEAROSAN is *santalyl stearate;* that is, santalol, the therapeutically active principle of sandalwood oil, combined with stearic acid. It occurs as an odorless, tasteless, light-yellow, oily liquid, which is insoluble in water and dilute acids, but is slowly broken up by alkaline fluids. It is equivalent to about 50 per cent. of oil of sandalwood, and is marketed only in 10-minim globules. Dose, 10 to 30 minims.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

STENOSINE is a trade name for *disodium methyl-arsenate*, which see. It is marketed only in ⅙-grain capsules. —Mfrs.: "Vial," Paris; agts.: E. Fougera & Co., New York.

STERESOL (Berlioz) is a solution of 270 parts of shellac, 10 of benzoin, 10 of balsam of tolu, 100 of carbolic acid, 6 of cinnamon oil, 6 of saccharin in alcohol to make 1000 parts. It is used as a paint in diphtheria, in tuberculous ulcers of the skin, etc.

STOMATOL is a wound antiseptic said to consist of 2 parts of soap, 45 of alcohol, 2 of aromatic substances (oil of peppermint, etc.), 5 of glycerin, and 42 of water.—Mfrs.: Stomatol Co., Hamburg, Germ.

STORAXOL is an antiseptic and antipruritic ointment containing storax, resorcin, menthol, camphor, phenol and precipitated sulphur.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

STOVAINE is the trade name adopted for *benzoylethyldimethylaminopropanol hydrochloride*, $C_{14}H_{21}O_2N.HCl$. It is closely related chemically to alypin. It occurs in small, shining scales which are freely soluble in water or alcohol. Its solutions may be sterilized by boiling without suffering decomposition, but are incompatible with alkalies and all alkaloidal reagents. Stovaine is used as a local anesthetic, generally in 1 to 4 per cent. solutions; to mucous membranes it is applied in 5 to 10 per cent. solutions. Dose internally, 1/30 grain.—Mfrs.: Poulenc Frères, Paris, France; agts.: Parmele Pharmacal Co., New York.

STRAMMENTHOL is a name for cigarettes used for the treatment of asthma. They contain stramonium leaves, sodium nitrate and menthol.

STREPTOLYTIC SERUM.—See under *serums*.

STRONFORMASAL is defined as *strontium methylenedisalicylate*, and is used in anemic rheumatic cases. Dose, 20 to 30 grains three or four times daily. See caution under *formaldehyde*.—Mfrs.: Organic Chem. Co., Fort Washington, Pa.

STRONTIUM ACETATE occurs as a white powder soluble in water. It has come into use as an anthelmintic.

Dose, 45 grains in water sweetened with glycerin, morning and evening for five days.—(Nonproprietary.)

STRONTIUM ARSENATE, $Sr(AsO_2)_2+4H_2O$, forms a white powder soluble in water. It is employed as an alterative, chiefly in malaria and skin diseases. Dose, 1/30 to 1/15 grain.—(Nonproprietary.)

STRONTIUM FERRATE occurs as a dark-red powder, slightly soluble in water, but decomposing rapidly with the evolution of oxygen and the formation of iron and strontium bromides. It is used as a hematinic and nervine. Dose, 5 to 15 grains.

STRONTIUM LACTATE, $Sr(C_3H_5O_3)_2+3H_2$, occurs as a white, granular powder of slightly bitter taste. It is soluble in about 4 parts of water, less freely in alcohol. It is employed as an alterative, anticatarrhal and anthelmintic, in rheumatism, nephritis, worms, etc. Dose, 5 to 15 grains; as an anthelmintic, 30 grains twice daily for five days.—(Nonproprietary.)

STRONTIUM PEROXIDE as marketed is a mixture consisting essentially of 84.5 per cent. of strontium peroxide (SrO_2) with hydrogen peroxide and strontium hydroxide; the strontium peroxide content being equivalent to 11.3 per cent. of available oxygen. It occurs as a fine, white, odorless and tasteless powder, practically insoluble in water but on contact therewith gradually decomposed into hydrogen peroxide and strontium hydroxide, the hydrogen peroxide being further decomposed by the latter with liberation of oxygen. It is used as an antiseptic dusting-powder and ointment.—(Nonproprietary.)

STRONTIUM SALICYLATE, $Sr(C_7H_5O_3)_2+2H_2O$, occurs as white crystals, soluble in water and alcohol. It is prescribed as an antirheumatic and anodyne in doses of 10 to 15 grains two or three times daily.—(Nonproprietary.)

STROPHANTHIN is the amorphous glucoside of strophanthus Kombé, now official. Antidotes are atropine or muscarine subcutaneously, camphor, or picrotoxin.

STROPHANTHIN THOMS *(gratus strophanthin; g. strophanthin; crystalline strophanthin)* is a crystalline glucoside obtained from strophanthus gratus and having the formula $C_{30}H_{46}O_{15}+9H_2O$. It is identical chemically with *ouabain*. The official strophanthin is methylouabain, $C_{31}H_{48}O_{12}$, and is obtained from strophanthus Kombé. It occurs as colorless, odorless, bitter crystals, soluble in about 100 parts of water and 30 parts of absolute alcohol, slightly soluble in ether or chloroform. Its action is qualitatively identical with that of official strophanthin, but is twice as active when injected hypodermically or intravenously. Dose, 5 to 10 minims of a 1 per cent. solution; by injection, 1/20 grain.—Mfr.: E. Merck, Darmstadt, *Germ.; agts.:* Merck & Co., New York.

STROPHANTHONE is described as "a purified and *physiologically* tested preparation of strophanthus seed,"

used hypodermically or internally. Dose, 8 to 15 minims. —Mfrs.: Parke, Davis & Co., Detroit, Mich.

STRYCHNINE ARSENATE occurs as a white powder soluble in water. It is used chiefly in tuberculous skin diseases and malaria. Dose, 1/60 to 1/15 grain; subcutaneously, 4 to 16 minims of ½ per cent. suspension in liquid paraffin.—(Nonproprietary.)

STRYCHNINE CACODYLATE occurs as a white powder soluble in water. It is a very unstable salt, which quickly decomposes in solution, the strychnine depositing. Such a liquid would of course be extremely dangerous, as the patient might get a fatal quantity of strychnine in a dose from the last portion of it; the drug should not be dispensed in solution. Dose, 1/30 to ¼ grain.—(Nonproprietary.)

STRYCHNINE GLYCERINOPHOSPHATE occurs as a white, crystalline powder soluble in water. It is used as a reconstructive nervine. Dose, 1/60 to 1/20 grain.—(Nonproprietary.)

STRYCHNINE IODATE, $C_{21}H_{22}N_2O_2.HIO_3$, occurs as colorless needles, soluble in water. It is employed mostly subcutaneously in certain paralyses, anesthesias, etc. Dose, 1/20 to 1/10 grain.—(Nonproprietary.)

STRYCHNINE NTRATE (official) is used largely in dipsomania, hypodermically.

STURMANN'S SOLUTION for local anesthesia consists of cocaine hydrochloride 1 gram, decolorized tincture of iodine 0.3 gram, phenol 0.3 gram, glycerin 10 grams, and distilled water to make 100 grams. To 1 gram of this solution, 2 drops of solution of suprarenine hydrochloride (or of any hydrochloride of the active principle of the suprarenal capsule) 1:1000 are added.—(Nonproprietary.)

STYPTASE is a general hemostatic containing as its active ingredients "calcium tannochlorate (218), witch-hazel (8) and fluorides (1)." Marketed in *liquid* form (dose, 1 to 2 teaspoonfuls three or four times daily) and as *tablets* (1 to 2 per dose).—Mfrs.: Chem. Fabrik Ebenau, Munich W, Germ.

STYPTICIN, $C_{13}H_{19}NO_4.HCl$, is *cotarnine hydrochloride*, the base of which is an alkaloid, obtained from narcotine by oxidation. It occurs as a yellow, crystalline powder, of bitter taste, and readily soluble in water and alcohol. It is used as a uterine hemostatic and sedative, and as a styptic in dental and nasal hemorrhage. Dose, in violent bleeding, 1½ to 4 grains, several times a day; in menorrhagia, ¾ to 1½ grains four or five times daily, in tablets or elixir. Externally it is applied in substance or in strong solution, or as gauze or cotton.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

STYPTOL is neutral *cotarnine phthalate*, and thus related to stypticin. It occurs as a yellow, bitter powder freely soluble in water. It is used like stypticin, and in

the same doses.—Mfrs.: Knoll & Co., Ludwigshafen (Germ.) and New York.

STYRACOL is the *cinnamic ester of guaiacol* or *guaiacol cinnamate*, $C_{16}H_{14}O_3$, occurring as a white, odorless crystalline powder, easily soluble in alcohol or chloroform, and insoluble in water. It contains 55 per cent. of guaiacol. It is used in place of guaiacol in phthisis and intestinal tuberculosis and catarrh. Dose, 15 grains three or four times daily.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

SUBCULOYDS are plant preparations designed for hypodermic use, the most prominent ones being lobelia and ergot.—Mfrs.: Lloyd Bros., Cincinnati, O.

SUBCUTIN is the name applied to *anesthesin para-phenolsulphonate* which occurs as a white powder soluble in 100 parts of water. Its solutions are not decomposed by boiling, and it is used subcutaneously in 1 per cent. solution in physiological salt solution as a local anesthetic in place of anesthesin.—Mfr.: Dr. E. Ritsert, Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

SUBESTON is a *dibasic*, pulverulent, sparingly soluble, *aluminum acetate* of the formula, $Al_2(C_2H_3O_2)_2.(OH)_4$. It is employed as an astringent and antiseptic dusting-powder.—Mfr.: Dr. Alb. Friedländer, Berlin, Germ.

SUBLAMINE is the trade name for *ethylenediamine mercury sulphate* [$HgSO_4.2C_2H_4(NH_2)_2+2H_2O$]. The substance occurs as a white powder readily soluble in water. It is used for disinfection of the hands in surgical and gynecological practice, and as a substitute for corrosive sublimate hypodermically in syphilis, in eye diseases and other cases wherein mercuric chloride is used. Dose, 15 minims of 1 to 3 per cent. solution subcutaneously; applied externally in 1:5000 to 1:500 solution; for hand disinfection in 1:1000 solution. It is also employed as a fixative for anatomical, pathological and histological purposes (5 to 10 per cent. solutions).—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

SUCCINYL DIOXIDE or PEROXIDE.—See *alphozone*.

SUCRAMIN is the ammonium salt of saccharin, or *ammonium ortho-sulphamine-benzoate* or *ammonium benzoic sulphinide*. It occurs as a white, freely soluble powder of intensely sweet taste, and is intended as a substitute for soluble saccharin (sodium-benzoyl-sulphonic imide) as a sweetener.

SUGEROL is a brand of *benzosulphinide* (saccharin).

SULFAMMON is a preparation analogous to *ichthyol*. Made by Apotheker Grischow, Altendorf, Germ.

SULFIDAL is the trade name adopted by a Viennese *firm for* its *colloidal sulphur*. See this.—Mfrs.: G. & R. *Fritz*, Vienna, Austria.

SULFINID is a German brand of benzosulphinide (saccharin).

SULFOGENOL is a Swiss analogue of *ichthyol.*—Mfrs.: Lüdy & Cie, Burgdorf, Switzerland.

SULFOGUAIACIN *(quinine sulphoguaiacolate* or *guaiacol sulphonate)* occurs as small, yellow, bitter scales, soluble in water and alcohol. It is prescribed in phthisis, intestinal catarrh, etc. Dose, 5 to 15 grains.

SULFOID.—See *sulphur colloidal.*

SULFOL is an antiseptic and antiprurtic ointment each ounce of which contains 5 grains of chloretone, combined with precipitated sulphur, resorcin, cresylic acid, oil of cade and turpentine.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

SULPHOFORM is the trade name for *triphenylstibine sulphide* $(C_6H_5)_3SbS$. It is used in 5- to 10-per cent. aqueous solutions or ointments for skin diseases, and is said to liberate sulphur in nascent form.

SULFONAL *(sulfonmethane; diethylsulphon-dimethylmethane)* is now official under the name *sulphon-methane.*

SULFOPYRIN is a succedaneum for migrainin, defined as a chemical compound of antipyrin and sulphanilic acid, but consisting, according to Dr. F. Zernik, practically of a mixture of about 86.5 parts of antipyrin and 13.5 parts of sulphanilic acid. Dose, 5 to 15 grains.—Mfrs.: Ebert & Meincke, Bremen, Germ.

SULFOSOT is the potassium salt of the diphenols and diphenolic esters contained in cxreosote. It is a brown, syrupy fluid, freely soluble in water, and extremely hygroscopic, in view of which it is marketed only as 10 per cent. syrup that lacks the odor of creosote. It is used in consumption, chronic bronchial catarrh, etc. Dose, 1 to 4 fluid drams.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

SULFUROL is a preparation analogous to *ichthyol.* Mfrs.: Basler Chem. Werke, Basle, Switzerland.

SULLACETIN is a white, odorless, slightly bitter salt representing, according to Dr. F. Zernik, essentially a mixture of molecular quantities of potassium guaiacolsulphonate and guaiacetin. It is offered as a remedy in tuberculosis, etc. Dose, 5 to 15 grains.—Mfrs.: Drs. van Gember & Fehlhaber, Berlin-Weissensee, Germ.

SULPHOGEN is advertised as an antiferment, antacid and stomachic, and said to contain "in each fluid dram 1 grain of sulphur, 3 grains of magnesia and the active principle of genista, with aromatics." It is used in acid dyspepsia, flatulence, and the like. Dose, a teaspoonful three to six times daily, after eating.—Mfrs.: Sulphogen Chem. Co., St. Louis, Mo.

SULPHO-LYTHIN is a granular, noneffervescent, alkaline salt consisting, according to an analysis made at the chemical laboratory of the American Medical Association, essentially of a mixture of dried sodium sulphate, dried sodium phosphate, dried sodium thiosulphate, sodium chloride and lithium citrate. It is used as a hepatic stimu-

lant and eliminant, in chronic constipation, autointoxication, gout, etc. Dose, a teaspoonful in hot water at bedtime or before breakfast.—Mfrs.: Laine Chem. Co., New York.

SULPHONMETHANE and SULPHONETHYLMETHANE are the *U. S. P.* designations for *sulfonal* and *trional* respectively.

SULPHUR COLLOIDAL *(sulfoid)* occurs as a grayish-white powder containing 80 per cent. of sulphur and about 20 per cent. of albumin. It is soluble in water, forming a milk-like liquid. Its solutions on standing any length of time deposit sulphur and should hence be prepared fresh as wanted. The substance is insoluble in alcohol. Acids, alkali and ammonium salts precipitate sulfoid from its solutions, but the precipitate redissolves on the addition of water. Sulfoid mixes well with ointment bases. It is offered as a dermic, in place of sulphur.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

SUPRACAPSULIN is another trade name for the active principle of the suprarenal capsule in 1:1000 solution. See *epinephrine*.—Mfrs.: Cudahy Packing Co., Chicago, Ill.

SUPRADIN is an iodized dried extract of the suprarenal gland. Dose, 2 to 5 grains.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

SUPRANEPHRANE HYDROCHLORIDE is a brand name for 1:1000 solution of the active principle of the suprarenal capsule. See *epinephrine*.

SUPRARENAL GLAND DRIED officially represents five times its weight of fresh suprarenal capsule. It is prescribed as an alterative and nervine, in Addison's disease, diabetes, insipidus, climacteric disturbances, etc. Dose, 3 to 6 grains, after meals. The active principle is known by various trade names and is described herein under *epinephrine*.

SUPRARENALIN is the name used for *epinephrine* by Armour & Co., Chicago, Ill. See latter title.

SUPRARENAL-TONOGEN is a solution of 1 gram of suprarenal extract, 5 grams of chloretone and 7 grams of sodium chloride in 1000 grams of distilled water.—Mfr.: Gideon Richter, Budapest, Hungary.

SUPRARENIN SYNTHETIC is epinephrine produced synthetically according to the method of Stolz and Flaecher, and has the same physical, chemical and physiologic properties as natural epinephrine obtained from suprarenal glands.—Mfrs.: Farwerke, Hoechst-on-M., Germ.; agts.: F. Kroehl & Co., New York.

SYCOSE is a trade name for the article commonly known as saccharin and now official under the name of benzosulphimide.

SYMPHOROL is the collective name for several salts of [illegible] acid. Symphorol S (sodium symphorol; sasrol), $C_6H_4(O.SO_2)_2Na_2$, occurs as a white, crystalline, bitter powder, soluble in about 20 parts of water and en-

ployed as a diuretic in doses of 15 grains four or five times a day. *Symphorol L* (lithium symphorol) is more readily soluble in water and is used particularly in gout and gravel. *Symphorol S* (strontium symphorol) is freely soluble in water and is prescribed more especially in renal diseases, etc.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

SYRGOL is defined as "a combination of colloidal silver (oxidized) and albumoses, containing 20 per cent. of silver." It occurs as brownish-black odorless scales, soluble in about 2 parts of water, and readily soluble also in glycerin. It is used as an astringent and bactericide, chiefly in gonorrhea, in 0.2 to 0.4 per cent. solution.—Mfr.: B. Siegfried, Zofingen, Germ.; agt.: Julius Schmid, Astoria, N. Y.

SYROLAT is an analogue of *sirolin (syrup of thiocol)*. —Mfrs.: "Sicco," Berlin W, Germ.

SYSTOGEN, at first provisionally called *tokosin*, is a synthetic succedaneum for ergot, chemically defined as *paraoxyphenylethylamine* or *tyrosamine hydrochloride* in 0.2 per cent. solution, 1 c.c. of which is equivalent to 2 Gms. of ergot. Dose, 0.5 to 2 c.c.—Mfrs.: La Zyma, St. Ludwig, Germ.

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TABLOGESTIN.—See under *chologestin*.

TACHIOL or *tachyol* is an Italian trade name for *silver fluoride*, which see.

TAKA-DIASTASE *(Koji)*, obtained by J. Takamine by the action of aspergillus oryzæ (Cohn) upon steamed rice, occurs as a brownish, hygroscopic, nearly tasteless powder, soluble in water but insoluble in alcohol. It is used in amylaceous dyspepsia. Dose, 2 to 5 grains.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

TAMPOL is the generic name for a line of medicated tampons for gynecological use. Boric acid, tannic acid, dermatol, fluidextract belladonna, hydrastinine hydrochloride, pantopon, protargol, secacornin, thigenol, zinc oxide and zinc sulphate tampols are offered.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switz.) and New York.

TANARGAN *(tanargentan)* is a tannin-silver-albumin preparation containing 10 per cent. of silver and 15 per cent. of tannic acid. It is sparingly soluble in water and acid liquids, soluble with decomposition in alkali solutions. It is used as an intestinal astringent and disinfectant. Dose, 5 to 10 grains. *Tanargan infants'* is a similar product, but contains only 1½ per cent. of silver and 25 per cent. of tannin.—Mfrs.: Drs. R. & O. Weil, Frankfort-on-M., Germ.

TANARGENTAN is the trade applied to a chemical compound of silver with tannin and albumin, and occurs as a dark-brown powder insoluble in water. It contains about

6 per cent. of silver, and is used chiefly as an intestinal astringent. Dose, 7½ grains three times daily; children, 1½ to 5 grains. Marketed also as 0.25-gram tablets.—Mfrs.: Drs. R. & O. Weil, Frankfort-on-M., Germ.

TANNAL is a trade name applied to bacis *aluminium tannate*, a light-brown powder insoluble in water and employed in nose and laryngeal affections by insufflation as an astringent antiseptic. *Soluble tannal* is *aluminium tannotartrate*, a yellowish-brown powder soluble in water, employed as a gargle or douche in throat and nose troubles, in 1 to 5 per cent. solution.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

TANNALBIN *(tannin albuminate exsiccated)* occurs as a brown, odorless, tasteless powder, containing 50 per cent. of tannic acid. It is practically insoluble in the ordinary solvents, but soluble with decomposition in alkali solutions. It is employed as an intestinal astringent. Dose, 15 to 30 grains.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

TANNICHTHOL is the trade name for *Mulford's suppositories of tannic acid compound*. Each contains phenol ¾ grain, tannic acid 2½ grains, ichthyol 1 grain, extract belladonna ¼ grain, extract stramonium ¼ grain, and extract witch-hazel ¼ grain, with or without opium (1 grain). They are used in hemorrhoids and anal fistula.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

TANNIGEN *(diacetyl-tannin* or *tannyl acetate)*, $C_{14}H_6(C_2H_3O)_2O_9$, occurs as a light-gray, nearly odorless and tasteless, somewhat hygroscopic powder, soluble in alcohol, solution of sodium phosphate, borax, or soda, but insoluble in water. Decomposed by alkalies. It is used as an intestinal astringent in non-infectious diarrhea. Dose, 5 to 15 grains three to six times daily, as powders.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

TANNIN-FORMALDEHYDE.—See *tannoform*.

TANNIPPYRINE *(antipyrin tannate)* is a condensation product of tannic acid and antipyrin employed as a styptic in nosebleed, etc.

TANNISMUTH *(bismuth ditannate)* occurs as a light-yellow powder with slightly astringent taste, insoluble in water. It contains from 17 to 21 per cent. of bismuth and is used as an intestinal astringent. Dose, 5 to 15 grains three to five times daily.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

TANNISOL *(methylene-ditannin)* is described as a condensation product of tannin and formaldehyde, analogous to *tannoform*.—Mfrs.: H. Wolfrum & Cie, Augsburg, Germ.

TANNOBROMINE is obtained by the action of formaldehyde upon dibromtannin. It occurs as a reddish or yellowish-gray powder, containing 25 per cent. of bromine, soluble in alcohol, slightly soluble in water, readily soluble in alkaline liquids. It is employed as a nerve sedative in

place of the alkali bromides, and, externally, as an antipruritic. Dose, 15 to 60 grains three times daily. See caution under *formaldehyde*.—Mfrs.: Akt. Ges. für Anilinfabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

TANNOCASUM results from the action of tannic acid and formaldehyde upon casein in alkaline solution. It occurs as a gray powder, insoluble in the ordinary solvents, and used as an intestinal astringent like tannalbin, etc. Dose, 10 to 30 grains. See caution under *formaldehyde*.

TANNOCREOSOFORM is an odorless, tasteless compound of tannic acid and creosote with formaldehyde; used as an intestinal antiseptic and astringent, particularly in tuberculous enteritis. Dose, 8 to 20 grains. See caution under *formaldehyde*.

TANNOFORM *(tannin-formaldehyde, methylene-ditannin)* is a condensation product of tannic acid and formaldehyde, occurring as a whitish-red, odorless powder, soluble in water. It is employed as a drying antiseptic and deodorant in sweating feet, weeping eczema, etc., and as an intestinal astringent and disinfectant; also as a dandruff cure. Used externally pure or in 10 to 25 per cent. dusting-powder. Dose, 5 to 15 grains; for *cattle*, 5 to 10 drams. See caution under *formaldehyde*.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

TANNOGUAIAFORM is an odorless, tasteless compound of tannic acid, guaiacol and formaldehyde, employed as an intestinal astringent and disinfectant, especially in intestinal tuberculosis. Dose, 8 to 20 grains. See caution under *formaldehyde*.

TANNON is a name by which *tannopine* was originally known.

TANNOPINE is chemically *hexamethylenetetramine-tannin*, $C_{41}H_{42}O_{27}N_4$, and is a condensation product of tannin with hexamethylenamine. It forms a fawn-colored, odorless, tasteless powder, insoluble in the ordinary solvents, but soluble with decomposition in alkaline liquids. It is prescribed as an intestinal astringent and antiseptic. Dose, 10 to 15 grains four to six times daily. See caution under *formaldehyde*.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

TANNOTHYMAL *(tannin-thymyl-methane)* is described as a condensation product of formaldehyde, thymol and tannin, and occurs as a whitish, tasteless powder melting at 235° C. and soluble in alcohol and in alkali solutions. It is used as an antidiarrheal. Dose, 5 to 15 grains. See caution under formaldehyde.—Mfrs.: Schimmel & Co., Miltitz, Germ.; agts.: Fritzsche Bros., New York.

TANNYL is defined as a compound of tannin and oxychlorcasein. It occurs as a grayish-brown, almost tasteless powder, insoluble in water, and used as an intestinal astringent. Dose, 15 to 30 grains.—Mfrs.: Gehe & Co., Dresden, Germ.

TANOCOL (*colla tannoform*) is a compound of tannin and gelatin, occurring as a grayish-white, odorless powder, containing about 50 per cent. of tannic acid, nearly insoluble in water, but soluble with decomposition in alkaline liquids. It is prescribed as an intestinal astringent. *Dose*, 15 to 30 grains.—Mfrs.: Akt. Ges. für Anilinfabrikation, Berlin, Germ.; agts.: Lehn & Fink, New York.

TAO is a so-called "solid emulsion" or "emulgate" containing, according to reports, 2.38 per cent. of lecithin, 90.45 per cent. of protein, 5 per cent. of balsam of peru, 1.97 per cent. of calcium diphosphate and 0.17 per cent. of sodium chloride. As this powder is difficult to take, it is employed in the form of waffles, each of which represents 0.5 gram of balsam of peru, 0.25 gram of lecithin, 9.25 grams of roborat, 5 grams of so-called nougat paste (almonds and chocolate), and 2 grams of waffle mass. It is used as a nutritive, especially in phthisical subjects.—Mfr.: Dr. Piorkowski, Berlin, Germ.

TAPHOSOTE (*creosote tannophosphate*) occurs as a grayish-yellow syrupy liquid, and is used as a substitute for creosote. Dose, 15 to 30 minims three times daily. Marketed as 0.5 gram pearls.—Mfrs.: Lambiotte Frères, Paris, France.

TAR-DERMASAN is a dermasan soap containing about 5 per cent. of inspissated liquor carbonis detergens and 10 per cent. of beech-wood tar. It forms a brown, soft, almost liquid mass, completely soluble in alcohol. According to Dr. M. Steiner, it is a good preparation of tar.—Mfr.: Fritz Friedländer, Berlin, Germ.

TARTARLITHINE is a trade designation for *lithium bitartrate*, small white crystals or crystalline powder, soluble in water, and employed largely in gouty and suppurative gingivitis. Dose, 5 to 10 grains three times daily.—Mfrs.: McKesson & Robbins, New York.

TAUROCOL represents the active constituents of bile (sodium glycocholate and sodium taurocholate) combined with cascara sagrada, phenolphthalein and aromatics. It is a cholagogue, marketed only in tablets. Dose, 1 to 3 tablets.—Mfrs.: Paul Plesaner Co., Detroit, Mich.

TEBEAN is an antituberculer prepared from pure cultures of human tuberculosis bacilli, marketed in dry form, each gram of which contains 5 milligrams of tubercle bacilli, and as sterile solution of various strengths.—Mfrs.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

TESTICLE EXTRACTS have been claimed to increase muscular energy 10 to 20 per cent. and to increase nutrition. They have been used in obesity, neurasthenia, prostatic hypertrophy and many other conditions, but the results have been rather uncertain.

TETANUS ANTITOXIN.—See under serums (antitoxins).

TETRAIODOPHENOLPHTHALEIN.—See synalbin.

TETRAIODOPHENOLPHTHALEIN-BISMUTH. — See *eudoxin.*

TETRAIODOPYRROLE is a chemical synonym of the official *iodole.*

TETRAMETHYLAMMONIUM HYDROXIDE, $(C_2H_3)_4N$-OH, is marketed only as 10 per cent. aqueous solution, which is colorless, alkaline, bitter, and caustic; turns pinkish with age. It is used in rheumatism and gout. Dose, 10 to 20 minims three times daily, well diluted.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

TETRAMETHYLTHIONINE HYDROCHLORIDE is the official designation for pure, medicinal *methylene blue.*

TETRANITROL is a terse synonym of *erythrol tetranitrate.*

THALETTS are small blocks of chocolate each containing as the active ingredient ½ grain of phenolphthalein and used as a laxative. Dose, 2 to 4 blocks.—Mfr.: H. K. Mulford Co., Philadelphia.

THALLIUM ACETATE *(thallous acetate)*, $TlC_2H_3O_2$, occurs as white crystals, soluble in water and alcohol; used in syphilis and in phthisical nightsweats. Dose, 1½ to 3 grains at bedtime. Often causes the hair to fall out.—(Nonproprietary.)

THALOCOL is the name of tablets each containing ½ grain of phenolphthalein and ⅛ grain of calomel.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

THALOSEN is a laxative tablet containing as its active ingredients 1 grain of phenolphthalein, with sulphur, senna and aromatics.—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

THEOBROMINE *(dimethylxanthine)*, $C_7H_8O_2N_4$, is an alkaloid found in cacao, kola, etc., and also made synthetically; a white, crystalline powder, odorless and bitterish, almost insoluble in water or chloroform and readily soluble in ether. It is used as a diuretic, but is rather liable to produce gastric disturbance. Dose, 4 to 8 grains.—(Nonproprietary.)

THEOBROMINE AND LITHIUM BENZOATE, also known by the trade name *uropherin B*, occurs as a white powder, containing 50 per cent. of theobromine, and soluble when fresh in 5 parts of water, but readily decomposing on exposure. It is used as a diuretic. Dose, 5 to 15 grains, in powders or capsules.—Mfr.: E. Merck, Darmstadt, Germ.: agts.: Merck & Co., New York.

THEOBROMINE AND LITHIUM HIPPURATE.—See *urogenin.*

THEOBROMINE AND LITHIUM SALICYLATE, also designated *uropherin S*, occurs as a white powder, becoming on exposure, and used in the same cases and doses as theobromine and lithium benzoate.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

THEOBROMINE SALICYLATE, $C_7H_8N_4O_2.C_7H_6O_3$, is *claimed to be* a true salt of theobromine. It forms white

needles, sparingly soluble in water without decomposition. It is used as a diuretic and urinary antiseptic. Dose, 7½ to 15 grains.—(Nonproprietary.)

THEOBROMINE-SODIUM AND SODIUM ACETATE.—See *agurin.*

THEOBROMINE-SODIUM AND SODIUM FORMATE.—See *thephorin.*

THEOBROMINE-SODIUM AND SODIUM SALICYLATE *(theobromine sodio-salicylate; theobromine and sodium salicylate)* occurs as a white, odorless powder, decomposing on exposure. It is used as a diuretic, especially in post-scarlatinal nephritis. Dose, 15 grains 5 or 6 times daily in powder with water. See also *diuretin.*

THEOCIN is the trade name for *synthetic theophyllin.* The article is fully described under theophyllin.—Mfr.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

THEOCIN-SODIUM ACETATE.—See *acet-theocin-sodium.*

THEOCIN-SOLUBLE.—See *acet-theocin-sodium.*

THEONACET is a trade name applied to *theobromine-sodium and sodium acetate,* a substance also known as *agurin.*

THEONASAL is a trade name applied to *theobromine and sodium salicylate* by G. & R. Fritz, Vienna, Austria.

THEOPHYLLIN is an alkaloid contained in tea leaves, *dimethylxanthine* 1:3, an isomer of theobromine ($C_7H_8N_4O_2$). It is a white, odorless, bitter powder, soluble in about 180 parts of water, sparingly soluble in alcohol and insoluble in ether. It is used as a diuretic. Dose, 3 to 5 grains three or four times daily.—Mfrs.: Boehringer & Soehne, Mannheim, Germ.; agts.: Merck & Co., New York.

THEOPHYLLIN-SODIUM is the sodium salt of the preceding, somewhat more freely soluble in water, and used for the same purposes, but in slightly larger doses (6 grains).

THEOPHYLLIN-SODIUM AND SODIUM SALICYLATE is a still more readily soluble compound of theophyllin, given as a diuretic in doses of 7½ grains three or four times daily, in solution. It and theophyllin-sodium are said to irritate the stomach less than does theophyllin itself.

THEOPHYLLIN SYNTHETIC is marketed under the name *theocin.*

THEPHORIN is a double salt of *theobromine-sodium and sodium formate,* a diuretin in which the salicylic acid has been replaced by formic acid. It occurs as a white, odorless, saline-bitter powder, soluble in 10 parts of water forming an alkaline solution which on standing for any length of time turns cloudy from separation of theobromine. It contains 62.5 per cent. of theobromine. (See *caution* as to formates under formaldehyde.) It is used as a diuretic. Dose, 7½ grains two or three times a day.

—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

THERMOFUGE is an antiseptic poultice composed of aluminium silicate, glycerin, boric acid, menthol, thymol, oil of eucalyptus and ammonium iodide, and used in inflammations. (An analogous product is now official under the name *cataplasma kaolini).*—Mfrs.: Parke, Davis & Co., Detroit, Mich.

THERMOL is the original trade name for the article now known as *a—s—phen.* See the latter title.

THIAL is the trade name of *hexamethylenetetramine oxymethylsulphonate,* a chemical occurring as a white, odorless powder, readily soluble in water. It is used as a disinfectant, deodorant and topical antihydrotic in ½ to 2 per cent. solutions. *Thial* liquid is a 50 per cent. solution of thial.—Mfr.: P. Gloess, Solothurn, Germ.

THIALION is a "laxative compound of lithium, sodiotrilithic anhydrosulphate, $3Li_2O.NaO.SO_3+7H_2O$." According to analyses made at the chemical laboratory of the American Medical Association, the preparation is "a mixture consisting chiefly of sodium sulphate and sodium citrate with very small amounts of lithium, the average of several estimations indicating the following composition: sodium citrate 58.6 per cent.; anhydrous sodium sulphate 26.6 per cent.; sodium chloride 3.3 per cent.; anhydrous lithium citrate 1.8 per cent.; water 9.7 per cent." Used in gouty conditions, cystitis, etc. Dose, a heaping teaspoonful in hot water, usually before breakfast.—Mfrs.: Vass Chem. Co., Danbury, Conn.

THIGENOL is defined as the sodium salt of the sulphonic acid of a synthetic sulpho oil (dervied from oil of sweet almond); a dark-brown syrupy liquid, containing 2.8 per cent. of sulphur organically combined, specific gravity 1.062, of faint sulphurous odor and empyreumatic taste; soluble freely in distilled water, diluted and alcohol, glycerin or chloroform; miscible with oils and ointment bases. Hard (calcareous) water and acetic or mineral acids cause precipitation in its solutions. It is used in skin and female diseases, and internally, like ichthyol; its applications are odorless. Dose, 3 to 10 grains, in peppermint water, three times daily.—Mfrs.: Hoffmann-La Roche Chem. Works, Basle (Switzerland) and New York.

THIOCOL *(potassium ortho-guaiacolsulphonate* or *sulphoguaiacolate),* $C_6H_3.(OCH_3)OH.SO_3K$, occurs as a white, odorless powder, of slightly bitter taste and sweetish aftertaste; soluble readily in water or syrup, slightly in alcohol, and insoluble in ether or oils. It is used as an odorless substitute for guaiacol, in tuberculosis, typhoid fever, etc., internally. Dose, 5 to 20 grains, three times daily. —Mfrs.: Hoffmann-La Roche, Basle (Switzerland) and New York.

THIODINE is a combination of ichthyol, iodine, boroglycerin, hydrastine, carbolic acid and glycerin, marketed

in the form of elastic suppositories containing 10 per cent. of the mixture. It is used in gynecological affections.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

THIODINE is also the name of a compound of thiosinamine and ethyl iodide, $C_9H_{13}N_2SI$, occurring as white crystals melting at 68° C., very freely soluble in water, sparingly soluble in alcohol and containing about 46 per cent. of iodine. It is used as a disinfectant and a softener of scar tissue, etc., like thiosinamine, as well as an alterative in parasyphilitic affections. Dose, 1½ grains twice daily, as pills or subcutaneously (in 10 to 20 per cent. solution). Mfr.: Dr. E. Bloch, St. Ludwig, Germ.

THIOESTRIN is an organic sulphur compound introduced by Dr. Pfeffer for use by inunction in gout, rheumatism and other inflammatory affections of the joints. Nothing definite can be learned regarding its chemical constitution.—Mfrs.: Chem. Fabrik Vechelde, Vechelde, Germ.

THIOFORM, *basic bismuth dithiosalicylate*, $(S.C_6H_3.OH.COOBiO)_2+BiO_2H_2O$, occurs as a yellowish-brown, odorless powder, containing 72 per cent. of bismuth oxide and about 28 per cent. of dithiosalicylic acid. It is insoluble in the common solvents. It is used chiefly as a drying wound antiseptic and dermic; also as a gastro-intestinal astringent and antiseptic. Applied externally like iodoform. Dose, 5 to 15 grains.—Mfrs.: Speyer & Grund, Frankfort-on-M., Germ.; agts.: Otto Hann & Bro., New York.

THIOL is a water-soluble mixture of sulphurated and sulphonated petrolatum oils. *Liquid* thiol occurs as a brownish-black liquid of faintly bituminous odor resembling that of Russia leather, and containing about 1.8 to 2 per cent. of sulphur; soluble freely in water or glycerin, moderately in alcohol, and sparingly in ether. *Dry* thiol is the liquid form evaporated to dryness and pulverized; a brown powder of bituminous odor and bitter, slightly astringent taste, and containing 8 to 9 per cent. of sulphur. The liquid form is used pure or in ointments or solutions in skin and female diseases, like ichthyol, also internally. Thiol powder is employed chiefly in intertrigo, weeping eczema, discharging wounds, etc., usually pure; internally it is used as an alterative and anticatarrhal. Dose, 2 to 5 grains three times daily, in peppermint water or pills.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

THIOPHEN DIIODIDE, $C_4H_2I_2S$, results from the action of iodine and iodic acid on thiophen, and occurs as a crystalline powder that is readily soluble in alcohol and ether and employed as a succedaneum for iodoform as a vulnerary.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

THIOSAVANOL.—See under saxanol.

THOSINAMINE (allylsulphocarbamide; allylsulpho-

urea; rhodalin), $CS(NH_3C_3H_5$, occurs as colorless, bitter crystals, of faint garlicky odor; soluble in about 3 parts of alcohol, moderately in ether, and slightly in water. It is prescribed internally and hypodermically as a resolvent, in cicatrices, strictures, corneal opacities, chronic deafness, etc. Dose, ½ to 2 grains, in capsules or tablet triturates three times a day, or subcutaneously two or three times a week in 10 to 15 per cent. alcoholic solution with 20 per cent. of glycerin.—(Nonproprietary.)

THIOSINAMINE-ETHYL IODIDE.—See *thiodine.*

THIOSINAMINE AND SODIUM SALICYLATE.—See *fibrolysin.*

THOREMEDIN PASTA is a caustic paste consisting of lead sulphate 68.6 per cent., thorium sulphate 1.5 per cent., didymium sulphate 0.25 per cent., sulphuric acid (official strength) 27.6 per cent., traces of nitric and hydrochloric acids, and moisture 2.05 per cent. It is used in skin cancers, lupus, moles, warts, etc. *Thoremedin Unguentum* contains 10 per cent. of the pasta in a wool-fat base, and is used as an antiseptic and astringent in skin diseases. *Thoremedin Liquor* contains 2 per cent. of thoremedin pasta in distilled water, and is used in open lesions, inflammations of mucuous membranes, etc.—Mfrs.: E. R. Squibb & Sons, New York.

THORIUM NITRATE, $Th(NO_3)_4+4H_2O$, occurs as white, crystalline conglomerations, readily soluble in water. Dr. S. Tracy latterly uses it by inhalation in tuberculosis, and as a 25 per cent. paste in parasitic skin diseases.—(Nonproprietary.)

THYMALKA is *Mulford's liquor thymolis compositus;* an alkaline antiseptic solution, each fluid ounce of which represents sodium bicarbonate 16 grains, sodium borate 4 grains, sodium benzoate 6 grains, sodium salicylate 2 grains, menthol ⅛ grain, thymol ⅛ grain, camphor ⅛ grain, oil eucalyptus ⅜ minim, and methyl salicylate ⅛ minim.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

THYMIODIDE is a combination of thymol iodide, bismuth oxyiodide, and boric acid, occurring as a salmon-colored, odorless powder, only partly soluble in the usual solvents. It is employed as a wound antiseptic in place of iodoform.—Mfrs.: H. K. Wampole Co., Philadelphia, Pa.

THYMOFORM or *thymoloform* is a condensation product of thymol and formaldehyde, occurring as a yellowish, tasteless powder of faint thymol-like odor; readily soluble in ether, alcohol, chloroform or olive oil; insoluble in water or glycerin. It is used as a wound antiseptic, in place of iodoform.—Mfr.: Dr. G. F. Henning, Berlin SW, Germ.

THYMOL-ETHYLBENZOATE is claimed to be identical *with arhovin.*

THYMOLINE is a liquid antiseptic containing in each *100 parts* thymol 0.075, eucalyptol 0.312, camphor 0.075,

oil wintergreen 0.075, normal tincture baptisia 0.625, benzoic acid 0.8 and boric acid 2.35.—Mfrs.: Wm. S. Merrell Chem. Co., Cincinnati, O.

THYMOTAL *(thymol carbonate; thymol-urethane; tyrotol)* is an odorless, tasteless, white, neutral substance used as a vermicide. Dose (children), 7½ to 15 grains three or four times daily for four days, followed by a laxative.—Mfr.: Heyden Chem. Works, Radebeul (Germ.) and New York.

THYMOTOL is a brand of *dithymol diiodide.*

THYMOXYL is a 3 per cent. solution of hydrogen peroxide containing also 1 per cent. of thymol and about 33 per cent. of alcohol. It is used in 10 to 25 per cent. solution as a disinfectant and deodorant.—Mfr.: C. Raspe, Weissensee, near Berlin; agts.: C. Bischoff & Co., Inc., New York.

THYMUS DESICCATED is said to consist of the fresh thymus gland of the calf freed from fat, cleaned, dried, and powdered, without the addition of preservative or diluent. It occurs as a light-yellow powder having a peculiar odor and partly soluble in water. It is used in the treatment of exophthalmic goiter, rickets, hemophilia, and infantile marasmus and atrophy, and it has latterly been used with good results in certain rheumatic troubles. Dose, 2 to 5 grains three or four times daily.—Mfrs.: Armour & Co., Chicago and New York.

THYMYL TRICHLORACETATE occurs as water-soluble crystals, soluble also in alcohol and ether. It is employed as a caustic and antiseptic, on new growths, indolent ulcers, etc.

THYOLEIN is an *ichthyol* analogue.—Mfrs.: Chuit, Naef & Cie, Geneva, Switzerland.

THYPTOL *(liquor eucalypti compositus)* is an antiseptic solution analogous to the official *liquor antisepticus.*—Mfrs.: John Wyeth & Bro., Philadelphia, Pa.

THYRADEN is a lactose trituration of dried extract of thyroid gland, 1 part of which represents 2 parts of fresh gland. It occurs as a light-brownish, sweetish, nearly odorless powder, employed as an alterative and antifat (myxedema, struma, obesity, etc.).—Dose, 4 to 8 grains three times daily.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

THYREIN is synonymous with *iodothyrine.*

THYREOIDECTIN capsules contain 5 grains dried thyroid serum obtained from thyroidectomied animals: a reddish-brown, aromatized powder employed in exophthalmic goiter, struma, myxedema, etc. Dose, 1 to 2 capsules three times a day.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

THYREOPROTEIN (Beebe) is "a concentrated extract containing the active principle of the thyroid gland, assayed and adjusted to a definite standard of 0.33 per cent. of iodine." It is used wherever thyroid gland has been

employed. Marketed in 2-grain tablets of 1, 2, and 5 per cent. strength.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

THYRESOL consists chiefly of the methyl ester of santalol, $C_{15}H_{23}OCH_3$. It is a colorless liquid of aromatic odor, almost insoluble in water, easily soluble in alcohol or ether. It is employed as an anticatarrhal and antigonorrheic in place of oil of sandalwood. Dose, 10 minims three or four times daily.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

THYROCHROME is an alcohol-ethereal extract of the thyroid gland of the calf, claimed to be an improvement on the thyroid preparations at present in use. It is offered in 4-grain tablets, and is used mainly in cancer of the stomach.

THYROID GLAND has come into vogue as a remedy in struma, myxedema, obesity, hematuria, and visceral hemorrhage. The dried gland, representing about 5 parts of the fresh organ, is now official in the U. S. Pharmacopœia. Dose, 2 to 6 grains thrice daily, as tablets.

THYROID SERUM.—See *antithyroidin*.

THYROIDIN is a dried extract of sheep's thyroid, 1 part of which represents 6 parts of fresh gland. Dose, 1 to 3 grains three times daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

THYROIDINE.—See *iodothyrine*.

TISOPON is a preparation said to represent the total alkaloids of opium as hydrochlorides, and consequently appears to be similar to, if not identical with, *pantopon*.

TOKOSIN is the provisional name that was applied to the article marketed as *systogen*.

TOLUOL SUGAR is a trade name for *saccharin*.

TOLUTUSSIN.—See under *diatussin*.

TOLYPYRINE *(tolyantipyrine; paratolyl-dimethyl-pyrazalone)* $C_6H_4.CH_3.N.CH_3N.CH_3C:CH.CO$, occurs as colorless crystals soluble in 10 parts of water, readily soluble in alcohol. It is used as an antipyretic and analgesic. [Dose, 7½ to 15 grains two to four times daily.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

TOLYSAL is *tolypyrine salicylate;* colorless crystals, readily soluble in alcohol, sparingly soluble in water. It is prescribed as an antirheumatic and analgesic. Dose, 45 to 90 grains per day.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

TONOGENUM SUPRARENALE is an analogue of *epinephrine* solution.—Mfr.: Gideon Richter, Budapest, Hung.

TONOL is a collective brand name for the *glycerophosphates* made by E. Schering, of Berlin, Germ., and marketed here by Schering & Glatz, New York.

TOXINOL is an alterative and antiluetic each fluid ounce of which represents 8 grains each of stillingia, burdock, poke root, berberis, and cascara amarga, 2 grains of prickly ash, 16 grains of red clover, 40 grains of potassium iodide, and ⅛ grain of mercuric chloride, in aromatic

elixir. Dose, 1 to 4 teaspoonfuls, after meals.—Mfrs.: Hawes Chem. Co., Louisville, Ky.

TRASULFAN is another analogue of *ichthyol*, manufactured by Reichold & Co., Benningen, Switzerland.

TRAUMATOL *(iodocresine; cresol iodide)* is a compound of cresylic acid and iodine, occurring as a violet-red, voluminous, odorless powder, containing 54 per cent. of iodine, insoluble in water or alcohol, slightly soluble in ether, and freely soluble in chloroform. It is used as a wound antiseptic, in place of iodoform.—Mfrs.: Chevrier & Kraus, Courbevoie, France.

TRIACETYLPYROGALLOL.—See *lenigallol.*

TRIACOL is an aromatic, non-saccharine solution of the sodium, potassium and ethyl-morphine salts of guaiacol-sulphonic acid, which salts have been named sodacol, potassacol, and ethacol. It is used in phthisis and other chronic pulmonary affections. Dose, 1 to 2 dessertspoonfuls three times a day.—Mfrs.: Alpers Pharmacy, New York.

TRIBROMBETANAPHTOL results from the action of three molecules of bromine on one molecule of betanaphtol. It occurs as a red to brown, odorless and tasteless mass insoluble in water but soluble in most of the other organic solvents and in oils. It is put forward as a wound antiseptic and cicatrizant.—Mfrs.: Chem. Fabrik Ladenburg, Ladenburg, Germ.

TRIBROMOMETHANE is better known as *bromoform.*

TRIBROMPHENOL *(bromol)*, $C_6H_2.Br_3OH$, forms white to reddish crystals soluble in alcohol, chloroform, glycerin or ether, insoluble in water. It is used as an external and internal antiseptic. Dose, 1 to 3 grains. Applied externally in 4 to 10 per cent. paints, ointments, or powders.—(Nonproprietary.)

TRIBROMPHENOL-BISMUTH.—See *xeroform.*

TRIBROM-TERTIARY-BUTYLALCOHOL. — See *brometone.*

TRICHLOR-TERTIARY-BUTYLALCOHOL.—See *chloretone.*

TRIFERRIN is *iron paranucleinate*, and forms a reddish powder containing 22 per cent. of iron, 2½ per cent. of phosphorus, and 9 per cent. of nitrogen. It occurs as a tasteless powder, soluble in weak solution of sodium carbonate, insoluble in the common solvents. It is prescribed as a hematinic, in anemia, chlorosis, convalescence, etc. Dose, 5 to 10 grains three times daily. Marketed also as 5-grain tablets.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

TRIFERROL is an elixir of triferrin containing 1½ per cent. of triferrin and 15 per cent. of alcohol. Dose, a tablespoonful.—Mfrs.: Knoll & Co., Ludwigshafen-on-Rh. (Germ.) and New York.

TRIFORMOL.—See *trioxymethylene.*

TRIGEMIN results from the action of butychloral hy-

drate upon pyramidon. It occurs as long white needles of faint aromatic odor and slight taste, soluble in about 65 parts of water, 10 parts of ether, and freely also in alcohol. Dr. Overlach uses it in migraine, facial neuralgia, headaches from overwork, etc. Dose, 7½ to 15 grains once or twice daily. It is hygroscopic and prone to turn yellow to brown in color, when it is said to cause gastric pain and hence is no longer eligible for use.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

TRIKRESIN is defined as a mixture of the three isomeric cresols—meta-, ortho- and para-cresol; probably identical with the official *solution cresol compound*.—Mfrs.: Wm. R. Warner & Co., Philadelphia, Pa., and St. Louis, Mo.

TRIKRESOL is a pure, natural mixture of para-, meta- and ortho-cresol. It occurs as a colorless, oily liquid, specific gravity 1.045, soluble in about 45 parts of water and freely soluble in alcohol. It is used chiefly as a surgical disinfectant and antiseptic dermic, in ½ to 1 per cent. solution.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

TRILOIDS is the name applied to triangular antiseptic tablets (blue and white) containing mercuric chloride.—Mfrs.: Wm. R. Warner & Co., Philadelphia, Pa., and St. Louis, Mo.

TRIMETHYLAMINE SOLUTION *(propylamine)* is a 10-per-cent. aqueous solution of $N(CH_3)_3$. t occurs as a colorless to pinkish liquid, having a strong fishy (herring-like) odor. It is employed as an antirheumatic. Dose, 15 to 45 minims.—(Nonproprietary.)

TRIONAL *(diethylsulphonemethylethylmethane)* is a trade name for the article now official in the U. S. P. under the title *sulphonethylmethanum*, and is thus fully described in readily accessible works of reference.—Mfrs.: Farbenfabriken of Elberfeld, Elberfeld (Germ.) and New York.

TRIOTONOL Tablets constitute a "tonol" combination consisting of the glycerophosphate of calcium (2½ grains), of sodium (2½ grains), and of strychnine (1/60 grain). They are employed as nerve tonics and stimulants. Dose, 1 or 2 tablets three times a day.—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

TRIOXYMETHYLENE, commonly but erroneously called *paraformaldehyde* and *paraform*, also *triformol*, $(CH_2O)_3$, is a polymer of formaldehyde occurring as a white powder evolving formaldehyde even at ordinary temperature but more rapidly when heated. It is insoluble in water, alcohol or ether, and is employed chiefly to generate formaldehyde gas by heating, and used only to a slight extent as an *intestinal disinfectant* in infectious diarrheas, and *externally as* a wart-destroyer. Dose, 5 to 15 grains. See *caution under* formaldehyde.—(Nonproprietary.)

TRIPHENIN *(propionyl-phenetidin)*, $C_{11}H_{15}NO_2$, occurs as a white, odorless powder of faintly bitter taste, soluble in 2,000 parts of water, more readily in alcohol and ether. It is used as an antipyretic and analgesic. Dose, 5 to 20 grains.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

TRITOLES are triturations of oils with substances capable of effecting minute subdivision of the oils. Malt extract is largely used because it excellently emulsifies the oils and makes stable emulsions. Castor oil, male fern oleoresin and codliver oil tritoles are among the combinations marketed.—Mfrs.: Chem. Fabrik "Helfenberg," Helfenberg, Germ.; agts.: Reinschild Chem. Co., New York.

TROPACOCAINE ARABINATE is a new salt of tropacocaine introduced by Dr. Erhardt as superior to the hydrochloride, especially for intraspinal anesthesia; its effect lasts much longer.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New oYrk.

TROPACOCAINE HYDROCHLORIDE *(benzoylpseudotropeine hydrochloride)*, $C_8H_{14}NO(C_7H_5O)$, is a salt of an alkaloid found in certain varieties of coca, but prepared also synthetically. It occurs as white needles freely soluble in water, and is employed as a local anesthetic in place of cocaine hydrochloride, its solutions being sterilizable by boiling without decomposition. From 3 to 5 per cent. solutions are used.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

TROPHONINE is described as a nutritive and invigorator for invalids, "composed of nucleoproteids, nucleoalbumin, and wheat gluten, together with the enzymes of the digestive glands." Dose, a teaspoonful.—Mfrs.: Reed & Carnrick, Jersey City, N. J.

TROPON is described as a brittle, yellowish, slightly hygroscopic powder containing but a very small amount of inorganic admixture, say up to 1 per cent. of salts, traces of fat, and from 5 to 10 per cent. of water. The rest is pure albumen. It is not soluble in water but is readily dissolved by dilute hydrochloric acid (0.2 to 0.4 per cent.), and easily peptonized by pepsin. It is offered as a nutritive for the sick and debilitated. Dose, a tablespoonful three times daily, in milk. *Iodotropon* is a combination of tropon with 5 per cent. of iodine, in tablet form. It is given wherever the internal administration of iodine is indicated. Dose, 3 to 6 tablets per day. *Irontropon* is a combination of tropon and 2½ per cent. of organic iron, flavored with chocolate. It is given as a tonic food. Put up as powder and tablets. Dose, a teaspoonful or 1 tablet three times a day. *Maltropon* is a combination of tropon and malt with 0.6 per cent. of lecithin. It is used as a galactagogue. Dose, a tablespoonful three times a day, in milk.—Mfrs.: Tropon Works, Muelheim (Germ.) and New York.

TRYGASE is a dried pure yeast occurring as a light-

gray powder having the odor and taste of yeast and insoluble in water.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

TRYPAN BLUE is the tetrazo compound of toluidine and amidonaphtholsulphonate of sodium, of the formula $C_{34}H_{28}N_6O_{14}S_4Na_4$; a dye which has been found useful in combating parasitic diseases in animals, especially piroplasmosis (spotted or Texas fever). It is used by intravenous injection, in cold saturated aqueous solution (about 1 per cent.); dogs receiving from 2 c.c. to 15 c.c (30 to 240 minims), cattle 150 c.c. to 200 c.c. (5 to 7 fluid ounces) per dose.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: Victor Koechl & Co., New York.

TRYPAN RED ("trypanrot" in German) is an anilin dye belonging to the class of benzo-purpurins (dinitrated tolidin and naphtionic acid). It occurs as a brownish-red, water-soluble powder, and is given internally in cachets or hypodermically in a 1:80 solution in serum, in cases of gastric cancer, lymphoderma and tuberculosis.—(Nonproprietary.)

TRYPANOCIDES is the generic name for a new class of preparations recommended for the treatment of trypanosomiasis. They are said to destroy the parasites in the blood and tissues when subcutaneously injected. The following are marketed: phenylglycol-para-arsinic acid, phenylthioglycol-para-arsinic acid, arsenomandelic acid, and arsenophenylthioacetic acid.—Mfrs.: Meister, Lucius & Brüning, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

TRYPSIN is the constituent of the pancreas gland and of pancreatin which digests albumin and fibrin. It occurs as a light-yellow powder having a faint odor and a meaty taste. It is almost completely soluble in water but insoluble in alcohol or ether. It is employed as a topical and intestinal digestive, and acts best in a slightly alkaline medium. It has been used as a solvent of diphtheritic and other false membranes, and it is claimed to have the power to destroy the cells of cancer without acting on the healthy tissue. Locally it is applied with a brush or as a spray. About 6 grains are mixed with 2 grains of sodium bicarbonate and triturated in a mortar while adding 1 to 2 drams of distilled water. Internally the dose as a digestant is 2 to 5 grains three times daily, about three hours after eating. It should not be used for hypodermic injection. Trypsin *glycerole* (glycerite) is a 70-per-cent. glycerin solution containing approximately 5 per cent. of trypsin, and occurs as a yellowish to brownish liquid of sweetish taste and characteristic odor. It has been employed internally and hypodermically in cancer. Dose, by mouth, 1 to 2 fluid drams; subcutaneously, 5 minims, gradually increased, every other day, diluted with two or three volumes of sterile normal salt solution. Mfrs.: Armour & Co., Chicago, Ill.

TRYPSOGEN Tablets contain the enzyme of Langerhans' glands, with the tryptic and amylolytic ferments of the pancreas, together with 1/100 grain of gold bromide and 1/200 grain of arsenic bromide in each tablet. They are employed in diabetes. Dose, 1 to 3 tablets thrice daily, after meals.—Mfrs.: G. W. Carnrick Co., New York.

TUBERCULIN is a name applied to a large number of preparations of the tubercle bacillus. It was first prepared by Prof. Robt. Koch, whose article is now generally called *old* tuberculin, to distinguish it from the *new* tuberculins, that is, tubercle bacilli residue (TR) and bacilli emulsions (BE). The tuberculins are used both for diagnostic purposes and the treatment of tuberculosis. A list of the various ones will be found in the Price List supplement to THE DRUGGISTS CIRCULAR.

TUBERCULIN ROSENBACH is a new tuberculin preparation obtained by the action of trichophyton fungus on cultures of tubercle bacilli. It is a brownish, clear liquid of peculiar odor, and contains ½ per cent. of phenol as preservative.—Mfrs.: Kalle & Co., Biebrich-on-Rh., Germ.; agts.: Lehn & Fink, New York.

TUBERCULINCTIO is the name of Koch's tuberculin ("old tuberculin") in ready-to-use sterile solutions.—Mfrs.: Dr. A. Bernhard Nachf., Berlin, Germ.

TUBERCULOCIDIN T C (Klebs) is a 1-per-cent. solution of the bactericidal and antitoxic substance of tubercle bacilli, preserved with 0.2 per cent. of cresol. It is used per os in the various tubercular diseases. Dose for adults, 5 drops, gradually and cautiously increased to 30 drops.—Mfr.: Fr. G. Klebs, Berlin W, Germ.

TUBERCULOL is described as "tuberculous toxine free from secondary products; contains in concentrated form the toxines of both the culture fluid and the bacterial cells." It occurs as a brown powder soluble in water. It is used for immunizing against tuberculosis as well as in the treatment of tuberculous affections.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

TUBERCULOSIS DIAGNOSTIC is dried tuberculin free from glycerin, prepared from tuberculin Koch (old tuberculin), and is used in 0.1-per-cent. solution for obtaining the tuberculo-ophthalmic reaction in cases of tuberculosis.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: Victor Koechl & Co., New York.

TUMENOL *(tumenolsulphonic acid)* is derived from bituminous mineral by dry distillation and subsequent treatment with sulphuric acid and alkalies. Three modifications are marketed: tumenol *paste*, from which the tumenol *oil* and *powder* are obtained. The oil is a dark-yellow viscid liquid insoluble in water but freely so in *ether* or alcohol. The powder is soluble in water. Tumenol is used in skin diseases chiefly: the oil pure or as a *spirit*; the paste in 5 to 10 per cent. ointments or tinctures; and the powder in 2 to 5 per cent. solutions (on com-

presses) or with zinc oxide as dusting-powder. Incompatible with ferric salts, potassium permanganate, and corrosive sublimate. *Tumenol venale* is a mixture of tumenol-sulphone and tumenol-sulphonic acid, of thick consistency and dark color. *Tumenol-sulphone* is *tumenol oil*, a thick, dark oil completely soluble in ether. *Tumenol-sulphonic acid* is *tumenol powder*, a dark-colored powder insoluble in water. *Tumenol-ammonium* is a dark oil which is soluble in water in all proportions and can readily be incorporated into ointments, pastes, etc.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

TUSSOL *(phenylglycolantipyrin; antipyrin amygdalate* or *mandelate)* $C_6H_5CH.OH.COOH.C_{11}H_{12}N_2O_3$, occurs as a white, bitter powder soluble in about 15 parts of water and 4 parts of alcohol, and decomposed by alkalies and milk. It is used chiefly in whooping-cough. Dose, 1½ to 7½ grains, according to age, 2 or 3 times daily.—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

TYALID is a combination of ptyalin and pancreatin, used particularly in amylaceous dyspepsia. Dose, 5 to 10 grains. Marketed also as tablets and elixir.—Mfrs.: G. W. Carnrick Co., New York.

TYLCALSIN is another brand of *calcium acetylsalicylate*.—Mfr.: Wm. Martindale, London, Eng.

TYLLITHIN is an English brand of *lithium acetosalicylate*, identical with *hydropyrin*. See the latter title.—Mfr.: Wm. Martindale, London, Eng.

TYRAMINE is a trade name adopted for *parahydroxyphenethylamine*, a water-soluble active principle of ergot which has been isolated and synthetized by Dr. G. Barger, one of the discoverers of ergotoxine. It is credited with the property of stimulating the uterus to contract, and is believed to be identical with the active constituent or "hormone" of the human placenta. It is marketed as hypodermic tablets, each containing 1/12 grain—Mfrs.: Burroughs Wellcome & Co., London (Eng.) and New York.

TYROSAMINE HYDROCHLORIDE.— See *systogen*.

TYSIN is a trade name for a solution of *formaldehyde*.

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UNGUENTINE is an ointment representing, according to the manufacturers, "alum compound (non-irritating), phenol, ichthyol, zinc oxide, aromatic and antiseptic oils, and petrolatum and purified animal fat." According to an analysis made at the chemical laboratory of the American Medical Association, unguentine contains aluminium acetate (not alum), zinc oxide (or zinc carbonate), no *ichthyol* or only the slightest traces, and less than 1 per *cent. of phenol*. It is used for burns and other inflamma-

tory cutaneous lesions.—Mfrs.: Norwich Pharmacal Co., Norwich, N. Y.

UNGUENTOLE is a preparation similar to unguentine—"a non-irritant alum ointment with omoform 5 per cent., carbolic acid 3 per cent., ichthyol 5 per cent., with solidified petroline as a base." It is used in burns, ulcers, and other cutaneous affections.—Mfrs.: Penn. Pharm. Co., Philadelphia, Pa.

UNGUENTUM CREDE is a 15-per-cent. ointment of collargol, 5 per cent. of water, 10 per cent. of white wax, and 70 per cent. of benzoinated lard. It is used by inunction in mild cases of puerperal sepsis, in phlegmon, carbuncle and other infections; also as a prophylactic of septic infection after childbirth, etc. Dose, 45 grains per inunction.—Mfrs.: Von Heyden, Radebeul, Germ.; agts.: Schering & Glatz, New York.

UNGUENTUM DURUM is what F. Miehle calls an ointment base consisting of hard paraffin 4 parts, wool fat 1 part, and liquid paraffin 5 parts.

UNGUENTUM HEYDEN is an ointment containing 45 per cent. of calomelol (colloidal calomel) and 2 per cent. of free mercury. It is of smooth consistence, nearly odorless, and of pale-gray color. It is used by inunction in place of mercurial ointment in syphilis.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

UNGUENTUM MOLLE of F. Miehle is a mixture of 22 parts of hard paraffin, 10 parts of wool fat, and 68 parts of liquid paraffin. With an equal weight of glycerin it yields a homogeneous, smooth ointment, and it readily takes up its own weight of water.

UNGUENTUM NAFTÆ is claimed to be identical with naftalan by the maker, Dr. A. Voswinkel, Berlin W, Germ.

UNGUENTUM TERRALIS is an analogue of the official *cataplasm kaolin*.—Mfrs.: Sharp & Dohme, Baltimore, Md.

URALINE or *uralium* is *chloral urethane*, $Cl_3C.(OH)H.NO.CO_2.C_2H_5$, occurring as a white powder insoluble in cold water and decomposed by boiling water. It is occasionally prescribed as a hypnotic. Dose, 30 to 45 grains.—(Nonproprietary.)

URANIUM NITRATE occurs as yellow crystals soluble in water, alcohol or ether. It is used in diabetes. Dose, 1 to 2 grains, gradually increased to 15 grains, two or three times daily. Incompatible with chloral hydrate or lead acetate.—(Nonproprietary.)

URAPURGOL is the same as *helmitol*.

URASOL.—See *a-f-sal*.

UREA *(carbamide)*, CH_4N_2O, though by no means a new substance, has only in recent years come into vogue as a therapeutic agent. As is known, it is a constituent of urine; but it is also formed artificially by heating a solution of ammonium cyanate. It occurs as white crystals soluble in water and alcohol, and is prescribed as a *diuretic*, antilithic and antitubercular—chiefly in renal

calculus and phthisis. Dose, 10 to 20 grains, in solution.—(Nonproprietary.)

UREABROMINE is described as being *urea and calcium bromide*, $CaBr_2.4CO(NH_2)_2$. It occurs as a white, crystalline powder melting at 186° C., slightly hygroscopic and bitter, and easily soluble in water or alcohol. It contains 36 per cent. of bromine, and is used as a nerve sedative in epilepsy, etc. Dose, 30 grains. Marketed only as 15-grain tablets.—Mfrs.: Gehe & Co., Dresden, Germ.

UREALINE is a liquid diuretic and urinary disinfectant, each dessertspoonful (the ordinary dose) representing 2 grains each of lithium benzoate, potassium bicarbonate, triticum, pipsissewa, buchu and hexamethylenamine, and ½ grain of hyoscyamus.—Mfrs.: Independent Pharmaceutical Co., Worcester, Mass.

UREA QUINATE *(chinate)*.—See *urol*.

UREA SALICYLATE is described under *ursal*.

UREOCHINN is defined as *quinine hydrochlorocarbamide*, and probably is identical with the well-known *quinine and urea hydrochloride*.

URETHANE is the trade name for the official *ethyl carbamate;* it is also known as *ethyl urethane*, and as *carbamic acid ethyl ester*. Incompatible on trituration with antipyrin, butyl-chloral hydrate, camphor, carbolic acid, menthol, naphtol, resorcin, salol or thymol; also with acids or alkalies.—(Nonproprietary.)

URICEDIN is a yellowish compound consisting approximately, according to analyses made at the chemical laboratory of the American Medical Association, of anhydrous sodium sulphate 61.52 per cent., anhydrous sodium citrate 29.62 per cent.; sodium chloride 2.13 per cent., anhydrous citric acid 3.25 per cent., moisture 2.53 per cent., and undetermined 0.95 per cent. It is employed as a uric-acid solvent in gouty manifestations. Dose, ½ to 1 teaspoonful in hot water, before breakfast.—Mfr.: J. E. Stroschein, Berlin, Germ.; agts.: General Drug Co., New York.

URIFORM (not *uroform*) is a urinary antiseptic and anticatarrhal each dose (2 fluid drams) of which is said to represent hexamethylenamine 7½ grains, saw palmetto 5 grains, santal 2½ grains, damiana 2½ grains, coca 2½ grains, and nux vomica ¼ grain.—Mfrs.: Schieffelin & Co., New York.

URISEPTIC is a systemic and urinary antiseptic each fluid ounce of which represents ½ ounce each of couch grass and corn silk, 32 grains of hexamethylenamine, and 8 grains of lithium benzoate. Dose, ½ to 1 tablespoonful, in hot water.—Mfrs.: Gardner-Borada Chem. Co., Chicago, Ill.

URISEPTIN is a urinary antiseptic and diuretic "each fluid ounce of which contains formaldehyde combined with lithium dissolved in concentrated liquid extract of corn silk and couch grass, and will liberate a sufficient quantity

of formaldehyde (24 grains) to impregnate the daily secretion of urine (45 to 50 fluid ounces) to a 1:1000 solution. Dose, tablespoonful night and morning, or 1 to 2 tablespoonfuls four times a day, preferably in hot water." According to an analysis made at the laboratory of the American Medical Association, "the active ingredients of uriseptin are hexamethylenamine (about 25 grains to each fluid ounce) and lithium benzoate (about 11 grains to each fluid ounce), neither of which compounds is mentioned on the label."—Mfr.: Gardner-Barada Chem. Co., Chicago, Ill.

URISTAMINE (Squire & Sons, London, Eng.) and URITONE (Parke, Davis & Co., Detroit) are two of the numerous trade names for *hexamethylenetetramine* (official).

UROCITRAL is the name applied to the double salt *theobromine-sodium and sodium citrate* occurring as a white alkaline powder of saline-bitter taste, containing 45 per cent. of theobromine, and soluble in hot water. It has a diuretic effect.

UROCOL is a trade name for tablets each containing 0.5 gram of urea quinate (urol), 0.9 gram of milk sugar, and 0.001 gram of colchicine. The article is used in gout. Dose, 3 to 5 tablets per day.—Mfrs.: Drs. Schütz & v. Cloedt, St. Vith, Germ.

UROGENIN is the double salt of *theobromine and lithium hippurate*, occurring as a white crystalline powder soluble in about 10 parts of water, affording slightly alkaline solutions which become turbid on keeping, and from which acids precipitate theobromine. It contains 47.8 per cent. of theobromine, and is used as a diuretic. Dose, 7½ to 15 grains.

UROGOSAN is a urinary antiseptic and antigonorrheic marketed as capsules each of which contains 0.3 gram of gonosan and 0.15 gram of hexamethylenamine. Dose, 1 to 3 capsules four times daily.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

UROL *(urea quinate)* is a compound of two molecules of urea and one molecule of quinic acid, of the formula $C_7H_{12}O_6.(CO)_2(NH_2)_2$. It occurs as white prisms of acid reaction and readily soluble in water and alcohol. It is prescribed in gout, gravel and other morbid conditions ascribable to excess of uric acid. Dose, 15 to 30 grains.—Mfrs.: Drs. Schütz & v. Cloedt, St. Vith, Germ.

UROLENICET Tablets contain 0.3 gram of lenicet and 0.2 gram of hexamethylenamine. They are intended for use as a urinary and gastro-intestinal disinfectant.—Mfr.: Dr. R. Reiss, Charlottenburg (Berlin) Germ.

URON is a urinary disinfectant to which the formula $LiC_{11}H_9NO_3$ is assigned by the makers, but which, according to analyses made at the chemical laboratory of the American Medical Association, is "not a chemical compound, but a mixture of lithium benzoate and hexamethyl-

enamine in approximately the following proportions: lithium benzoate 58 per cent.; hexamethylenamine 42 per cent." Dose, 10 to 20 grains.—Mfrs.: Uron Chem. Co., St. Louis, Mo.

UROPHERIN.—See *theobromine-lithium and lithium benzoate* and *salicylate*, respectively.

UROPURGOL is another trade name for *hexamethylenamine methylenecitrate*, better known as *helmitol* and *new urotropin*.

UROSANOL is the name applied to ready-made 1, 3 or 5 per cent. solutions of protargol marketed in a special injection apparatus by Berliner Hygiene Co., Berlin N, Germ.

UROSINE, described as *lithium quinate*, is in reality a mixture in tablet form of 0.5 gram of quinic acid, 0.15 gram of lithium citrate, and 0.3 gram of sugar per tablet. It is readily soluble in water, sparingly in alcohol, and insoluble in chloroform or ether. It is intended as a uric-acid solvent in daily quantities of 4 to 10 tablets. Marketed also as *effervescent* urosine, a small teaspoonful of which represents 15 grains of urosine, and as a 50-per-cent. unsweetened solution.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

UROTROPIN is a trade name for *hexamethylenetetramine* (now official as hexamethylenamine).—Mfr.: E. Schering, Berlin, Germ.; agts.: Schering & Glatz, New York.

UROTROPIN NEW is *urotropin methylenecitrate*, a chemical described under the commonly known trade name *helmitol*.

UROTROPIN QUINATE *(chinate)*.—See *chinotropin*.

URSAL is *urea salicylate*, and is used in rheumatism and gout in the same dose as sodium salicylate.—Mfr.: C. Erdmann, Leipsic-Lindenau, Germ.

URSTYAMINE is described chemically as *hexamethylenetetramine and lithium benzoate;* awhite powder easily soluble in water. It is employed in gout, rheumatism, cystitis, etc. Dose, 15 grains every morning in carbonated water. (Not to be confounded with uristamine.) See caution under *formaldehyde*.—Mfrs.: Squire & Sons, London, Eng.

UTROGEN is said to have the same composition as *pyrenol* (benzoyl-thymyl-benzoyl-oxybenzoate). Like the latter, it is used in asthma, pulmonary affections, etc.—Mfr.: Dr. A. Voswinkel, Berlin W, Germ.

UTROS *(Mulford's elixir viburni prunifolii compositum)* is a uterine tonic and sedative each fluid ounce of which is said to represent cramp bark 30 grains, black haw 20 grains, hydrastis 30 grains, aletris 15 grains, squaw vine 15 grains, blue cohosh 15 grains, cascara sagrada 15 grains, and "somnos" 160 minims.—Mfrs.: H. K. Mulford Co., Philadelphia, Pa.

UZARA is a preparation of the root of uzara, an asclepi-

adacea, introduced as a remedy for dysentery, cholera morbus, etc. It is marketed in liquid and in tablet form.—Mfrs.: Uzara Gesellschaft, Melsungen, Germ.

V

VACCINES, BACTERIAL.—See *bacterins*.

VALERYDIN *(para-valerylphenetidin)*, also known as *sedatin*, $C_6H_4(OC_2H_5)NH.C_5H_9O$, results when valerianic acid is heated with para-phenetidin, and forms needles soluble in alcohol. It is employed as a nerve sedative and antipyretic in doses of 7½ to 15 grains several times daily.—Mfr.: C. Erdmann, Leipsic, Germ.

VALERYLAMIDOANTIPYRIN.—See *neopyrin*.

VALERYLDIETHYLAMIDE.—See *valyl*.

VALERYLPHENETIDIN.—See *valerydin*.

VALIDOL is defined as *valerianic acid menthyl ester* or *menthyl valerianate*, $C_{10}H_{19}.C_5H_9O_2$, to which 30 per cent. of free menthol has been added. It occurs as thick, colorless, clear liquid, of mild, pleasant odor, and cooling, slightly bitter taste. It is used as a nerve sedative, analgesic and carminative, in hysteria, gastralgia, seasickness, syncope, etc. Dose, 10 to 20 drops, on sugar or in capsules. *Camphorated validol* is a 10-per-cent. solution of camphor in validol, used in debilated conditions as a stimulant, and as a dental anodyne in toothache from carious teeth.—Mfrs.: Zimmer & Co., Frankfort-on-M., Germ.; agts.: C. Bischoff & Co., Inc., New York.

VALSOL is an English analogue of *vasogen*, which see.

VALYL is the trade name for *valerianic acid diethylamide*, or *valeryl diethylamide*, $C_4H_9.CO.N(C_2H_5)_2$. The article occurs as a colorless liquid of a valerian-like odor and a burning taste. It is soluble in about 25 parts of water and easily soluble in alcohol or ether. It is prescribed as a nerve sedative and antispasmodic. Dose, 2 to 4 minims two or three times daily, in 2-minim capsules (only so marketed).—Mfrs.: Farbwerke, Hoechst-on-M., Germ.; agts.: V. Koechl & Co., New York.

VANADIOL is "a solution of vanadium oxychloride ($VOCl_3$) in an almost saturated solution of an alkaline chlorate. By virtue of its ability to liberate nascent oxygen it is indicated in a wide range of conditions—anemia, chlorosis, etc." Dose, 10 drops before meals. Marketed also in combinations: *phosphovanadiol*, a nutrient and hematinic; *vanadioserum*, for hypodermic and intravenous use; *vanadioseptol*, a germicidal solution; and *vanadioforme*, a surgical dusting-powder.—Mfr.: Vanadium Chemical Co., Pittsburgh.

VARICOL is defined as a chemical compound of about 20 per cent. iodine, 48 per cent. bismuth, and 30 per cent. resorcin-sulphonic acid. It is marketed only as suppositories, each of which is said to contain varicol ("bismuth

iodo-resorcin sulphonate") 0.4 gram, tannic acid 0.15 gram, calcium chloride 0.05 gram, zinc oxide 0.25 gram, balsam peru 0.15 gram, with cacao butter and wax. They are used as a pile remedy and rectal astringent in general. —Mfrs.: Morgenstern & Co., New York.

VARIUM is a trade name applied to the dried and powdered fat-free ovarian substance issued as tabloid varium 5 grains and used after castration and ovariotomy, in the climacteric, dysmenorrhea, etc.—Mfrs.: Burroughs Wellcome & Co., London (Eng.) and New York.

VASAPON is a preparation analogous to *vasogen*, made by Bohny, Hollinger & Co., Basle, Switzerland.

VASELOXYNE is another analogue of *vasogen*, made by Vloten & Duareau, Ansinéres, France.

VASENOL is an emulsion of petrolatum containing 25 per cent. of water; a yellowish-white, smooth, ointment-like substance which can take up several times its weight of water, and is miscible with fats, salts, powders, etc. Vasenol *liquid* is a white, neutral emulsion of paraffin oil containing 33⅓ per cent. of water, readily emulsifiable with aqueous liquids, and employed as an emollient base for liniments, creams, etc., to be used on burns, as well as a lubricant for catheters, etc. Vasenol *powder* carries 10 per cent. of vasenol. *Vasenol-mercury* is a smooth 33⅓ per cent. mercurial ointment. *Vasenol-formalin* is an antihydrotic foot-powder consisting of vasenol powder, 5 to 10 per cent. of formaldehyde solution, and 1 per cent. of salicylic acid. It is well rubbed into the feet after previous ablution with 1 per cent. alcoholic solution of salicylic acid.—Mfr.: Dr. A. Kopp, Leipsic, Germ.

VASOCONSTRICTINE is a British trade name for the active principle of the suprarenal capsule.—Mfrs.: Squire & Sons, London, Eng.

VASOGEN is defined as *oxygenated vaseline*. It is a faintly alkaline, yellowish-brown semi-liquid mass, forming emulsion-like mixtures with iodine, creosote, quinine, salicylic acid and other water-insoluble medicaments, which are readily absorbed through the skin. It is hence employed as an inunctionary vehicle in endermic medication. It is marketed in combination with naphtol, camphor, chloroform, guaiacol, ichthyol, iodoform, menthol, methyl salicylate, and thiol respectively, besides the drugs named above; also as *solid* vasogen (of ointment consistence), mercury-vasogen ointment, and capsules of a number of combinations (creosote, iodine, etc.). Numerous substitutes and analogous products have been launched (petrogen, vasolimentum, vasopolentum, vasol, vasoval, etc.).—Mfrs.: E. F. Pearson & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

VASOL is, according to Kottmeyer, a product similar in every respect to the better-known vasogen, and marketed also as *iodovasol*, a clear, brown fluid containing 7 per cent. of iodine.—Mfrs.: G. Hell & Co., Troppau, Austria.

VASOTONIN (Dr. B. Fellner) is a compound of yohimbine nitrate and urethane, occurring as a water-soluble substance of the melting-point 260 to 261° C. It is marketed only in ampuls containing 1.2 c.c. of a solution, representing in each c.c. 0.06 gram of vasotonin (equivadent to 0.01 gram of yohimbine alkaloid). It is employed as a vaso-dilator subcutaneously.—Mfr.: Theo. Teichgräber, Berlin S, Germ.

VASOVAL is a counterpart of *vasogen*.—Mfrs.: Behny, Hollinger & Co., Basle, Switzerland.

VERACOLATE is a combination of the bile salts (sodium glycocholate and sodium taurocholate) with extract of cascara, marketed in the form of tablets and extolled as a cholagogue in hepatic insufficiency and as a laxative. Dose: 1 tablet three times a day, or 3 tablets on retiring. —Mfrs.: Marcy Co., Boston, Mass.

VERATROLE *(pyrocatechin dimethyl ether)*, $C_6H_4(OCH_3)_2$, occurs as a liquid soluble in alcohol, ether and fatty oils. It is used externally as a paint in intercostal neuralgia, and combined with potassium iodide topically in orchitis, as well as internally in tuberculosis. Dose, 2 drops three times daily, in capsules.—Mfr.: E. Merck, Darmstadt, Germ; agts.: Merck & Co., New York.

VERATRONE is a clear, amber-colored, non-alcoholic, aqueous fluidextract of veratrum viride, having a pleasant odor and a slightly bitter taste. It is one-fourth the strength of the official fluidextract of veratrum. Chloretone is added as a preservative. It is intended especially for hypodermic use, far less irritating than the older liquid forms of veratrum. It is used in particular for the treatment of eclampsia. Dose, 10 to 20 minims.—Mfrs.: Parke, Davis & Co., Detroit, Mich.

VEROFORM ANTISEPTIC is a yellowish liquid containing 6 per cent. of formaldehyde gas dissolved in a solution of soap. It mixes with water in all proportions and is incompatible with the alkaline earths, heavy metals and acids. It is used in 1 to 2 per cent. solutions.—Mfrs.: Veroform Hygienic Co., Newark, N. J.

VEROFORM GERMICIDE is a yellowish liquid containing 20 per cent. of formaldehyde gas dissolved in a solution of soap. It mixes with water in all proportions. It is used as a bactericide and detergent in ⅛ to 1 per cent. solution.—Mfrs.: Veroform Hygienic Co., Newark, N. J.

VERONAZETIN *(veronacetin)* is a composite hypnotic marketed as tablets each of which contains sodium diethylbarbiturate 2¼ grains, phenacetin 2 grains and codeine phosphate ⅛ grain.—Mfrs.: R. & O. Weil, Frankfort-on-M., Germ.

VERONAL is the trade name for *diethylmalonylurea* or *diethylbarbituric acid*, $(C_2H_5)_2(CO)_2(NH)_2CO$. The article occurs as a white, crystalline, odorless, slightly bitter

powder, soluble in about 150 parts of water, more readily soluble in alcohol. It is used as a hypnotic and nerve sedative, particularly in cases of insomnia and excitation not due to violent pain. Dose, 5 to 15 grains, in hot water or tea.—Mfrs.: Farbenfabriken of Elberfeld (Germ.) and New York. Also E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

VERONAL-SODIUM is a trade name for the sodium salt of veronal (diethylbarbituric acid). See *sodium diethylbarbiturate.*—Agts.: Merck & Co., and Farbenfabriken of Elberfeld Co., New York.

VESTOSOL is an ointment said to contain formaldehyde, boric acid and zinc oxide. See caution regarding the use of formaldehyde under *formaldehyde.*—Mfr.: Dr. Lonner, Schöneberg, Germany.

VETOL is *veterinary yohimbine*, marketed as *mild* and *strong.*—Mfrs.: Chem. Fabrik. Güstrow (Germ.).; agts.: Lehn & Fink, New York.

VETRINOL is a *veterinary unguentine.*—Mfrs.: Norwich Pharm. Co., Norwich, N. Y.

VIOFORM *(iodochloroxyquinoline; nioform)*, $C_9H_4NOHIHCl$, occurs as a greenish-yellow, practically odorless, very bulky powder, insoluble in the common solvents. It contains about 42 per cent. of iodine, and is employed as an antiseptic vulnerary similarly to iodoform. Marketed also as gauze, 2½ and 5 per cent.—Mfrs.: Gesellschaft für Chem. Industrie, Basle, Switzerland; agts.: C. Bischoff & Co., Inc., New York.

VITOGEN is a mixture of boric acid with other antiseptics, employed as a vulnerary and cicatrizant, undiluted.—Mfrs.: G. F. Harvey Co., Saratoga Springs, New York.

VITOSE is an ointment base described as being "glycerin and oil albuminate; odorless, neutral, non-irritating, and not becoming rancid." Incompetely soluble in chloroform, benzene, or ether; takes up almost any proportion of water, oil, or other fats; melting point, 28° C.—Mfr.: J. E. Stroschein, Berlin, Germ.

VOLESAN capsules are said to contain 0.3 gram of carbonated creosote, 0.0025 gram of heroin, 0.25 gram of tolu balsam, and 0.065 gram of camphor. They are used in diseases of the respiratory tract. Dose, 3 to 6 capsules per day. (See caution regarding heroin under *heroin hydrochloride.*).—Marketed by Lehn & Fink, New York.

VULNOPLAST is a surgical dressing consisting of a lower layer of medicated antiseptic mull, another of gauze, and a top covering of adhesive plaster. It is especially adapted for minor surgery and as a "first-aid" dressing in accident cases. Marketed by Schieffelin & Co., New York.

VULNORID is a new antiseptic bandage superseding bardella and used on wounds, burns, etc. It comes in rolls 3½ inches wide and 4½ yards long.—Agts.: Ernst Bischoff & Co., New York.

X

XAMETRINE is a trade name for the official *hexamethylenamine.*

XANOL is a trade name for the National Formulary *caffeine sodio-salicylate,* a freely soluble double-salt of caffeine in water and hence adapted for subcutaneous injection.

XANTHOPICRIT is a trade name for *berberine.*

XAXA is a brand of *acetyl-salicylic acid* (aspirin).

XERASE consists of a mixture of 150 parts of pure yeast, 125 parts of bole, 20 parts of sugar, and 3 parts of nutritive salts, and is used locally in colpitis, cervical erosions, ichorous wounds, etc.—Mfrs.: Riedel & Co., Berlin (Germ.) and New York.

XEROFORM *(tribromphenol-bismuth; bismuth tribromphenate),* $Bi_2O_3(C_6H_2Br_3OH)BiOH$, occurs as a yellow nearly odorless and tasteless powder, containing 50 per cent. of bismuth oxide and insoluble in the ordinary solvents. It is used externally as an antiseptic and drying vulnerary and dermic; internally as an intestinal astringent and disinfectant. Dose, 10 to 15 grains several times daily.—Mfrs.: Heyden Chem. Works, Radebeul (Germ.) and New York.

XYLENE *(xylol; dimethylbenzene)* is the natural mixture of ortho-, meta- and para-xylene as present in coal tar. It occurs as a colorless liquid of the specific gravity of about 0.850. While used mostly technically, it has been recommended as an internal antiseptic in smallpox and bacterial diseases of the respiratory tract. Dose, 5 to 15 minims three times daily, in capsules or in red wine.—(Nonproprietary.)

Y

YEAST *(fæx medicinalis)* has in recent years come into vogue as an antisuppurative and alterative in such affections as furunculosis, folliculitis, articular rheumatism, erysipelas, typhoid fever, phthisis, etc. Dose, 1 to 3 teaspoonfuls before meals. (Many special preparations of yeast have latterly been marketed; see *Furunculin, Levuretin, Levurin, Levurinose, Mycodermin* and *Zymin.)*

YERBAZIN is an aromatized syrup of yerba santa, employed for disguising the taste of quinine and other bitter drugs.—Mfrs.: Eli Lilly & Co., Indianapolis, Ind.

YERSIN is an antitoxic serum for use in the treatment of bubonic plague.—Mfrs.: Pasteur Institute, Paris (France) and New York.

YOHIMVETOL is a yohimbine for veterinary use made by Chem. Fabrik, Güstrow, Germany; agts.: Lehn & Fink, *New York.*

YOHIMBINE HYDROCHLORIDE, $C_{22}H_{28}O_3N_2.HCl$ is the salt of an alkaloid isolated by Dr. L. Spiegel from yohimbe bark, the bark of corynanthe yohimbe, a rubiacea indigenous to the Cameroons. It occurs as a white, crystalline, bitter powder melting between 285° and 290° C. and moderately soluble in water or alcohol. It is credited with aphrodisiac properties. Dose, 1/12 to ⅛ grain three times daily, as tablets (also so marketed), or by hypodermic injection.—Made by various European firms, but sold on this market only by Lehn & Fink, New York.

YSYN is an albumin preparation derived from milk and containing, according to Hoppe, 85 to 87.5 per cent. of pure albumin. It occurs as a white, almost tasteless powder, and is said to be readily assimilated. It is intended to be used as a nutritive.—Mfrs.: E. Rott & Co., Goettingen-Magdeburg, Germ.

Z

ZEBROMAL is *dibromcinnamic acid ethyl ester*, or *ethyl dibromcinnamate*, of the formula $C_6H_5.(CHBr)_2.COO.C_2H_5$, and occurs as a white crystalline powder containing 47½ per cent. of bromine and having a faint aromatic odor and taste. It is insoluble in water, slightly soluble in alcohol and readily soluble in chloroform or ether. It has been introduced as a succedaneum for the alkali bromides. Dose, 8 to 30 grains. It must be kept protected against light. Marketed also as 15-grain tablets.—Mfr.: E. Merck, Darmstadt (Germ.); agts.: Merck & Co., New York.

ZEOZON is a dermic paste introduced by Dr. P. G. Unna, containing 3 per cent. of a new orthoxy derivative of esculin, which is stated to possess the property of intercepting or filtering out the ultraviolet rays of light and hence to possess a healing power in skin diseases where light has an injurious effect. *Ultra-zeozon* is a paste containing 7 per cent. of the esculin derivative.—Mfrs.: P. Beiersdorff & Co., Hamburg, Germ.; agts.: Lehn & Fink, New York.

ZIMPHEN.—See *zymphen*.

ZINC ALUMNOL is described under the title *zinol*.

ZINC BORATE, $ZnB_4O_7+7H_2O$, occurs as a white, amorphous, odorless powder, insoluble in the ordinary organic solvents. It is used as an antiseptic and astringent dusting-powder or ointment.—(Nonproprietary.)

ZINC CYANIDE, $Zn(CN)_2$, occurs as a white powder soluble in potassium cyanide solution and insoluble in water or alcohol. It is administered in doses of 1/12 to ⅛ grain several times daily in epilepsy, hysteria, whooping-cough, carcinoma of the stomach, etc.; also in cardiac affections.—(Nonproprietary.)

ZINC FORMASAL is the zinc salt of formasal (methylene disalicylic acid). It is used in the treatment of skin affections. See caution under *formaldehyde*.—Mfrs.: Or-

ganic Chem. Co., Fort Washington, Pa.

ZINC GALLATE *(zinc subgallate)* is a grayish-green powder insoluble in the ordinary solvents. It is prescribed in intestinal fermentation, phthisical night-sweats, eczema, gonorrhea, etc. Dose, 1 to 4 grains several times daily; applied externally pure, or as 10 to 20 per cent. dusting-powder or ointment.—(Nonproprietary.)

ZINC HEMOL is a compound of hemol with 1 per cent. of zinc; a dark-brown powder, insoluble in the usual solvents. It is used in chlorosis, chronic diarrhea, etc. Dose, 5 to 10 grains three times daily.—Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ZINC HYPOPHOSPHITE, $Zn(H_2PO_2)_2+H_2O$, occurs as colorless, hygroscopic crystals soluble in water. It is used mainly as an alterative and nervine in whooping-cough, chorea, chronic diseases, etc. Dose, ½ to 1½ grains.—(Nonproprietary.)

ZINC LACTATE, $Zn(C_3H_5O_3)_2+3H_2O$, occurs as white crystals soluble in about 53 parts of water. It is used internally as a nervine in epilepsy and other neuroses. Dose, ½ to 1 grain as pills or tablets.—(Nonproprietary.)

ZINC PERHYDROL is a brand name of *zinc peroxide*. Mfr.: E. Merck, Darmstadt, Germ.; agts.: Merck & Co., New York.

ZINC PERMANGANATE, $Zn(MnO_4)_2+6H_2O$, forms almost black crystals, readily, though as a rule incompletely soluble in water, decomposed by other solvents. It is used as a disinfectant and astringent in gonorrhea (1:4000 solution), eye diseases (1 to 2:1000 solution), etc. It should not be brought into contact with extracts, with alcohol, glycerin or other organic solvents, lest explosion occur.—(Nonproprietary.)

ZINC PEROXIDE as marketed is a mixture consisting essentially of about 45 per cent. of zinc peroxide (ZnO_2), with zinc oxide and a small quantity of hydrogen dioxide. It occurs as a yellowish-white, voluminous, odorless, tasteless powder, insoluble in water. On contact with the latter it is gradually decomposed into hydrogen dioxide and zinc hydroxide, the former being further decomposed by the alkaline zinc hydrate with liberation of oxygen. Dilute acids decompose it with formation of a solution containing hydrogen dioxide. It is used in the extemporaneous preparation of hydrogen dioxide for wounds, chronic ulcers, etc., and is applied as a dusting-powder either alone or mixed with tannic acid, or as 10 per cent. ointment, or in the form of gauze or as soap (10 per cent.).—(Nonproprietary.)

ZINC PHOSPHIDE, Zn_3P_2, formerly official, occurs as dark-gray, crystalline lumps having the odor of phosphorus, and insoluble in water or alcohol. It is used as a nerve stimulant and aphrodisiac. Dose, 1/60 to 1/12 grain, in pills or tablets.—(Nonproprietary.)

ZINC SALICYLATE, $Zn(C_6H_4.OH.COO)_2+3H_2O$, occurs

as white needles soluble in water and in alcohol. It is used externally in dermatological practice in substance or as "Itallie's zinc-gelatin," and internally as a nervine analogously to zinc valerianate. Dose, ½ to 1 grain three times daily.—(Nonproprietary.)

ZINC SOZOIODOLE.—See under *sozoiodole.*

ZINC STEARATE, a very fine dusting-powder, is now official.

ZINC SUBGALLATE.—See *zinc gallate.*

ZINC SULPHANILATE.—See *nizinc.*

ZINC SULPHOCARBOLATE is now official in the U. S. Pharmacopœia under the title *zinc phenolsulphonate.*

ZINC TANNATE *(sel de barnit)*, $Zn_3(C_{27}H_{19}O_{17})_2$, occurs as a gray powder insoluble in water and alcohol, soluble in diluted acids. It is used as an astringent internally in doses of 1 to 3 grains several times daily; externally in gonorrhea, in 1:1500 to 1:300 suspension in thin mucilage. —(Nonproprietary.)

ZINCODAT *(zinkodat)* is a trade-name for *zinc peroxide*, ZnO_2, used by the Chem. Fabrik, Coswig, Germany.

ZINCOPYRIN *(zinkopyrin)* is described as a double salt of 1 molecule of zinc chloride and 2 molecules of phenyldimethylpyrazolon (antipyrine). It is used as a cauterizing agent, and said to be less irritating and painful than zinc chloride itself.—Mfr.: Knoll & Co., Ludwigshafen-on-Rh., Germ.

ZINCOQUINOL *(zinkochinol)* is *zinc oxyquinolinesulphonate* and is employed as an antiseptic dusting-powder. —Mfrs.: Franz Fritsche & Co., Hamburg, Germ.; agts.: Parmele Pharm. Co., New York.

ZINOL *(zinc alumnol)* is *aluminium and zinc acetate*, a combination of 1 part of zinc acetate and 4 parts of alumnol. It occurs as a white, odorless powder, readily soluble in water, but insoluble in alcohol. It is used as an injection in gonorrhea (3—6:2000 solution).—Mfr.: Dr. J. Lewinsohn, Berlin SW., Germ.

ZUCKERIN is a trade name for *saccharin.*

ZYME-OID is characterized by the manufacturers as "a powerful gastrointestinal antiferment"; "a double borate salt." According to analyses made at the laboratory of the American Medical Association, the article is essentially a mixture of potassium chlorate (40.43 per cent.), sodium nitrate (32.22 per cent.), potassium tetraborate (1.6 per cent.), sodium tetraborate (3.31 per cent.) and boric acid (21.14 per cent.)."—Mfrs.: Abbott Alkaloidal Co., Chicago, Ill.

ZYMIN is a dried, sterilized yeast, marketed in powder form, tablets and bougies. The *powder* is used on wounds and cutaneous lesions. The *tablets* are employed internally in furunculosis, obstinate skin diseases, etc. Dose, 15 grains (one tablet) three times daily. The *bougies* consist of 40 per cent. of zymin, 40 per cent. of sugar, and 20 per cent. of a water-soluble indifferent excipient. They

are intended for use in gonorrhea of women.—Mfr.: Hof-Apotheke, Dresden, Germ.

ZYMPHEN (also spelled "*Zimphen*") is the name applied to "*sodium metaoxycyancinnamate*" of the formula $C_6H_4(OH)CH:C:(CN)COONa$. It occurs as yellowish crystals of bitter, astringent taste and faint aromatic odor, and soluble in water. It is offered as a digestive in cases where the gastric secretion is deficient; in large doses it is said to act as a cholagogue, laxative and diuretic. The ordinary dose is 1½ to 3 grains, after meals.

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